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On a NEW METHOD of OPERATING for the HARE-LIP, (Labium Leporinum) by Mr. RIEG, Surgeon, at Mentz.

[With an Engraving.]

AMONGST the different methods proposed for the operation of the hare-lip, the bloody twisted-suture has been approved, as the oldest and most convenient mode of cure, and has received several improvements and alterations in modern times. But this operation requires much accuracy and care, the least mistake being attended with disagreeable consequences; it is also liable to very material objections. In the first place, it seems to be directly opposite to the very purpose of the operation, that we should find no other means to resist the contraction of the adjoining muscles but in the sutures, by which the edges of the wound are intended to be kept in close contact with each other; and thus we endeavour to accomplish in this way two intentions, the former of which must always counteract the scope of the latter; a circumstance very often experienced in the cure of that deficiency. It may be farther alleged, that by the method of cure which has hitherto been in practice, a great deal of irritation and pain is caused, and it has often happened, that even in favourable cases, the cicatrix became uneven and puckered. In order to prevent these inconveniences, which may arise from all the known methods in many instances which we find recorded, I venture to propose a new mode of treatment, by which not only an effectual and certain cure is obtained, but which is likewise attended with less pain and difficulty in the application.

After having separated the adhesions of the upper lip with the gums, and cut off the sides of the fissure, so as to reduce it to the state of a recent wound through the whole extent of it, a small plate of silver, of the same breadth and length with the upper lip, and curved so as to lie close

on the arch of the upper jaw, is placed under the upper lip, fig. 1. Both ends, and also the corners of this plate, must be round and blunt, to prevent any harm or inconvenience, which it may otherwise occasion to the patient. On both sides of the plate small holes are made, two of which a little nearer to the superior margin, and the two other nearer to the inferior margin, and the distance between those of one side from those of the other makes one third of the whole length of the plate, or about one inch, *a b c d*. This plate serves to keep the lip in its natural situation, and at the same time to render the application of the adhesive plasters and of the uniting ligatures much easier, by covering any unevenness made by the teeth and gums, but especially to prevent the ligatures from cutting or irritating the parts through which they are passed.

The plate being thus placed under the upper lip, the surgeon must take care to stretch the lip equally on it, that the sides of the fissures exactly correspond with each other, and to bring the edges of the sore close together, which is greatly facilitated by the assistant pushing forward the cheeks. Mean while two waxed threads are provided at each end, with flat, double edged, and sharp needles; or at one end may be applied the needle, fig. 5. The surgeon now takes one side of the lip, together with the subjacent plate, either with the thumb and fore-finger of the left hand, or with Bell's curved forceps, and introduces with his right hand, by slightly lifting up the plate, the point of the needle into a groove which is on the inferior superficies of the plate *e*, till he arrives at the superior hole on that side, through which the needle being pushed, he perforates the upper lip and at the same time a small piece of sponge; the needle being detached from the thread, the latter hangs down the upper lip. This being done, the surgeon takes the needle of the other end of the same thread, and passes it in the same way, through the inferior hole of the same side; and having disengaged the needle from the thread, he gives the two ends of the thread to the assistant.

Before the threads are passed through the other side, the surgeon is to see that it is equally stretched above the plate, and thus drawn and pressed to the other side, that the edges of the wound, situated between both threads, may be easily and closely united. This being performed, the surgeon introduces the threads at the other side, in the same manner as before. In order to promote the accurate contact of the edges of the sore throughout its whole extent,

tent, incisions, *f*, are adapted on the plate, running from the holes towards the middle, by means of which the threads, if drawn tight, contribute towards pressing the edges of the wound more closely together. To prevent the thread from pressing or cutting the lip at one side more than at the other, the incisions, *f*, may be shut up by means of pins on each side, *g*, provided at one end with a knob, perforated with a small hole, through which a thread may be passed, in order to draw the pin more easily out, if required.

If by drawing the threads tight, it should be found that the edges of the wounds are not in close contact throughout the whole extent, one of the pins may be drawn out at the side where it may be thought most proper; and if this does not suffice, the pin at the opposite side may likewise be drawn out, by which means the edges of the fissure can be brought on each side one line and a half nearer to each other. Where the thread issues from the lip, a small piece of sponge is placed, serving to diminish the pressure on this part. When the margins of the wounds have been closely and equally united, the surgeon is to tie the undermost threads with a chirurgical knot (while the upper threads are drawn tight), and afterwards the upper ones; the knot however being made at the side of the wound, fig. 7. The union of the edges is besides greatly supported by oblong pieces of linen, spread with good adhesive plaster, and reaching from one ear to the other.

When there is a great deficiency of parts, and when the edges of the wound are brought with difficulty together, the following plaster bandage may be applied with advantage. Two large pieces of leather, narrow at one extremity, and reaching to where the threads issue out of the lip, are spread with good adhesive plaster, and on them compresses of the same size should be fastened; at the narrow end, three threads are fixed, crossing each other on the wound, and are fastened to a double headed bandage, which becoming by degrees broader, ends in two small heads. Having applied the leather on the cheek, this bandage is fastened on the compresses by means of pins, while its smaller heads are carried round the neck and head circularly. This bandage is not so easily loosened; and without much incommoding the patient, it has the advantage of supporting the muscles of the cheek, and preventing their retraction. If the fissure is not in the

 middle

middle of the lip, the plate should be purposely made, so as to be adapted to the particular case.

In applying the plate, it is of much importance to have the lips sufficiently stretched and tightly drawn together, when the needle is pushed through the hole; but this must be particularly observed in perforating the other part of the edges of the sore, otherwise they will become uneven. This, however, may be always prevented by proper attention; but with a view of guarding against it as far as possible, a small round prominence, *k*, is adapted to the inferior margin of the plate, serving as a guide how far the edges of the fissure are to be extended. It is unnecessary to draw the margins of the sore together before the needle is carried through, but only to bring the plate under one portion of the lip, till the inferior margin of the fissure covers that prominence, or reaches a little above it; while the ligature is only introduced but not drawn tight. Having in the same manner laid the plate under the other portion of the lip, the two edges of the sore will, on drawing the ligature tight, be closely and accurately united. In the middle of the superior margin of the plate an hemispherical segment is cut out, by which it is intended to give the lip full liberty to adhere to the gums, or to receive in it the frenulum. The plate may be made of gold, silver, or any other convenient metal, and also of whalebone, &c. and can be likewise conveniently used in the case of a double hare-lip.

The advantages which seem to arise from this mode of operation are the following: 1. The edges of the wounds are kept in close contact with each other, without being irritated by the retraction of the adjoining muscles. 2. The manner in which the needle is passed through, gives the least pain. 3. The irritation being less, not so great a degree of inflammation occurs as is caused by the common method. 4. The troublesome and sometimes dangerous oozing of the blood is more easily prevented by this than by the common method; and also the sucking of the blood, which is, in some cases, attended with dangerous consequences. 5. The plate prevents the new and disagreeable adhesions of the lip to the gums, which has sometimes taken place after the operation. 6. The bandage is not so readily loosened; and much trouble is saved, as it is not necessary to have needles, the points of which must be either removed or sufficiently covered, in order to prevent their wounding the contiguous parts. With respect to the subsequent treatment and the removal of the ligatures, nothing new or particular is required.

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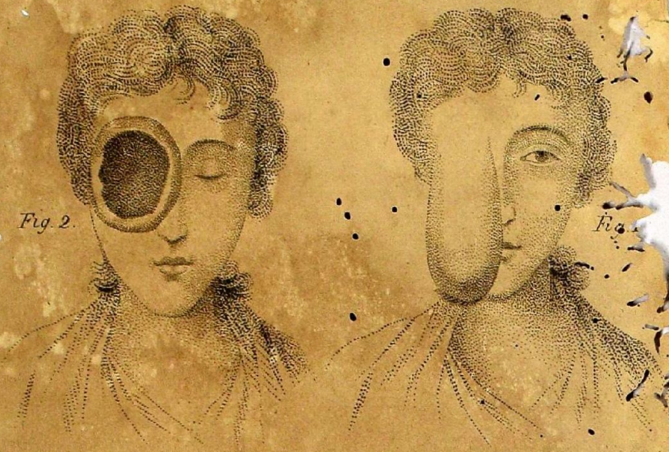
Mr. Rodman's Case of Tumour of the Eye, Vol XI p. 197

Fig. 2. Fig. 1



Dr. Loffler's Case of Inversio Uteri, Vol XI. p. 207.

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EXPLANATION OF THE PLATE.

Fig. 1. The curved plate, made of silver, &c; *a*, the middle part, making about one-third of its whole length; *b*, its margin, which must be made thinner than the middle part; *c*, the two superior holes; *d*, the two inferior.

Fig. 2. Shows the concave inferior superficies of the plate; *e*, the grooves which lead to the holes; *f f f f*, the conical incisions, each being about one line and a half long; *g g g g*, the pins for shutting the incisions; *k*, the round process; *l*, the hemispherical excavation.

Fig. 3. Shows the thickness and curvature of the needle.

Fig. 4. A pin drawn out.

Fig. 5. A curved needle, with a flat handle to it.

Fig. 6. The same magnified, showing that it is screwed to the handle.

Fig. 7. The appearance of the parts, after the ends of the ligatures are made tight, and the union of the edges of the sore accomplished.

CASE OF TUMOUR OF THE EYE; *communicated by* MR. JOHN RODMAN, *of Paisley*.

[With an Engraving.]

IN August, 1801, Margaret M'Lean, ætat. 12, while amusing herself with some companions, accidentally struck her forehead against a wall, by which stroke she was at ... little stunned; but soon recovered, and resumed her play. No complaint was noticed till the fifth day after, when she felt a pain in the forehead, over the left eye. This pain increasing, inflammation and evident enlargement of the eye quickly succeeded, which being treated with leeches, blisters, eye-waters, &c. without the desired effect, she was admitted into the Glasgow Infirmary on the 7th of November following.

It appears by the first report, that she had a fixed pain in the left eye and forehead; the vessels of the adnata were universally red and turgid; the eye considerably protruded, forming a regular smooth tumour, except at one part, where a small portion of it extended beyond the palpebræ, and the sight was entirely gone. Her appetite was good, and the general state of her health little impaired. Common cataplasms were applied to the enlarged eye; the vessels of the adnata were divided; the cornea was opened with a lancet, and a small quantity of pus discharged, mixed with part of the aqueous humour. No material benefit having been derived from this variety of treatment, the surgeon in attendance proposed to extirpate the eye; but as she and her parents were averse to it, she was dismissed by desire on the 28th of the same month.

O 3 Believing

Believing herself relieved by the use of bread poultices and rejecting every necessary medical advice, she persisted in applying them to the increasing tumour till the 18th of August, 1802, when, for the first time, I was desired to visit her, and took the following statement. Pulse 130, remarkably feeble; face and lips almost without a tinge of blood; her body is so emaciated, that it resembles a skeleton covered with delicate skin, through which the livid veins are seen. Notwithstanding the considerable quantities of laudanum given, to alleviate her pain and procure rest, she has not been known to enjoy sleep for several months. The tumour hangs down beyond the chin, and covers great part of the mouth; it is 7½ inches long; and being of a conical form, its base is 11 inches in circumference. The palpebræ are so very much extended as wholly to surround it. Fig. 1, represents this state of the tumour, with the cilia at the bottom. There is a foul ulcer between the cilia, from which frequent alarming hæmorrhagies have taken place since April last; another ulcer, formed a few days ago on the left side of the tumour, is spreading rapidly, and discharging such fœtid matter that to remain in the room where she is, for a short time, becomes extremely distressing.

I was now told she had determined to have the tumour removed, and intreated to lose no time in preparing for the operation. To this I could by no means assent at once, having made the above observations; it was reasonable to believe from the general appearances that she could not survive many days; and should she die soon after the operation, I might not only be blamed for rashness, but it might be an instance ready to produce against a similar operation under different circumstances. With a view to satisfy her, however, I procured a consultation of my medical brethren, whose kind and useful assistance on such occasions, I take this opportunity gratefully to acknowledge; and after maturely deliberating upon the state of the patient, it was unanimously agreed to form some plausible apology for deferring the operation. I did so, but she received it with visible marks of disappointment. Early next morning I was sent for again; found her uncommonly anxious to have the operation performed, and, in the eagerness of desire, she wept, crying out, "If I recover, it will be unexpected happiness; I would die rather than exist in this state of pain and wretchedness." Accordingly, with proper assistance, I extirpated the tumour, removed all the diseased substance within the orbit, covered the cut surface with spunge to prevent any hæmorrha-

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ry, for she was very faint though she lost little blood, applied the usual dressings, and laid her to rest. For this state of it, see Fig. 2.

She slept well the first night, was much easier next day, seemed cheerful, and after expressing her thankfulness for what I had done, assured me that she found more ease since yesterday, than she experienced many months before. A serous bloody fluid oozed from the wound till the fourth day, when the dressings were removed; and as the spunge could not be taken away without giving great pain, I contented myself with cutting off a part of it at every dressing. This gave her no uneasiness, and the wound was cleared of it in six weeks. By that time the orbit was nearly filled with healthy granulations, and in every other respect she was doing well, suffering no pain, enjoying sound sleep, and taking food; in short, her health was so much restored, that she could attend to some amusements, and was frequently carried into the garden. Towards the end of the seventh week, a small livid fungous tumour appeared at the internal angle of the orbit, where a deficiency of bone was discovered during the operation. It resisted every variety of caustic applied, became firmer, and pushed the granulations aside. Ten days after the appearance of this tumour, the surface of the sore changed for the worse; her pulse quickened, with diminished appetite; the sight of the right eye gradually failed, till she became blind; diarrhœa ensued, ending in bloody stools; and she died in the eleventh week after the operation. Being sensible of approaching dissolution, the day before death, she remarked, with a considerable degree of gratitude, that "she suffered more pain in one day before the operation than she did ever since."

Dissection, twenty-four hours after Death.

Having exposed the contents of the cranium, no mark of disease could be discovered; but upon pressing behind the diseased orbit, a large hard body was felt. After cutting up the dura mater and removing the brain, which seemed free from disease, this body was found lying between the orbit and dura mater, to which it adhered by means of slender vascular filaments. It was of a white colour, very irregular, extending as far back as the sella turcica, and considerably to the right of the crista galli. Its surface was hard like a body approaching to ossification, but towards the base of the cranium it had a gelatinous appearance whiter, and more consistent than pus. The livid tu-

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mour observed on the seventh week after the operation which I attempted to destroy by caustics, was a branch from the internal tumour. Another branch had forced itself into the left nostril some time before death, which in every respect resembled a very firm polypus. On the left side there did not remain the smallest vestige of the optic, nor any nerve to the seventh. The right optic nerve was preternaturally enlarged and surrounded by the internal tumour, from the sella turcica forward. After all the diseased substance was extracted, a most extraordinary deficiency of bone was observed. The left orbitar processes of the frontal, malar, and maxillary bones were consumed, except at the external canthus, where a small portion of the two first bones remained, carious, and thickened. The os unguis, with the whole left side of the sphenoid and ethmoid bones were wanting; indeed, every portion of bone which had been in contact with the tumour was either softened or destroyed. A probe passed freely through the body of the sphenoid bone into the nostrils and palate. Another tumour, which had appeared for some weeks, extended before death from above the superciliary ridge to the apex of the nose; it was an inch and a half broad and near an inch deep. The bones with which it was connected were also softened, and though it resembled the firmest part of the internal tumour in colour and consistence, they were totally unconnected.

December 19, 1804.

Some Observations *on the* Pathology *and* prevailing Diseases *of* Warm Climates; *by* A. Pearson, *Member of the London College of Surgeons, and Surgeon in the Service of the East India Company.*

(Continued from our last pp. 158—168.)

THE ventilation, which hot climates permit and demand, is a powerful cause why people in them are less liable to the contagious forms of febrile disease; I place the typhus icteroides out of the question, having had no opportunity of seeing that disease. In the early part of a passage from this country to India, and in crowded ships, a fever arises from the accumulation and effect of human miasmata, which is to be regarded as the typhus navium, and it in general corresponds to the nosological definition of that disease.

disease. In some cases, there is much more heat and vascular action than the definition supposes, and in others we find cough, and some degree of pneumonic affection. Writers on this subject, mention a peculiar burning sensation (calor mordicans) excited on the fingers by feeling the pulse as a diagnostic; where I have had opportunities of observing the disease, I have not been sensible of this symptom. The treatment best adapted, seemed to be sponging the body, and especially the lower extremities, with cold or tepid vinegar and water; an emetic at the commencement; laxatives pretty frequently, but not so as to induce full purging; spt. Mindereri with spt. ætheris, vitriolici seu nitrosi, decoction of bark with confectio cardiaca & vitriolic acid; 5 drops of tincture of opium, given every second hour alternately with a glass of port wine; anodyne draughts; blisters to the breasts and thighs; decoction of bark and serpentaria; a cordial diet as soon as the powers of digestion are recovered. No preventive means ought to be omitted; these consist of frequent and effectual ventilation by windsails, and opening the ports of the ship; by getting up the hammocks daily; by cleanness and dryness of the decks; by personal cleanliness; by not allowing the people to remain below when the ships are crowded with soldiers, not even at meals; by fumigation with nitrous fumes, as pointed out by Dr. Smyth, by white washing, and sprinkling with vinegar.

In the warm climates, the attacks of febrile disease are generally accompanied with symptoms of bilious absorption, and torpor of the intestinal canal, and with a greater or less tendency to remission.

The treatment recommended by authors is very contradictory; some advising a continued and severe evacuant plan, while others administer bark on every appearance of remission, and even without waiting for any. If purging with calomel and neutral salts is assiduously practised in the first days, giving intermediately mild diaphoretic and antimonial medicines, the use of bark will be found unnecessary, or may be entered on with much greater safety and advantage. I am doubtful if the genuine remittent fever appears without a previous exposure to the exhalation of marshes, or that from rank vegetation; and the distinct remissions and exacerbations described in books, are not frequently to be met with. In remarking upon this, I will consider it as I have seen it at Bencoolen, which is an unhealthy situation; and the disease as it appears there is, I believe, the endemic of Batavia in general, answering to the

the nosological definition of the tritæophya paludosa, fre-quently however with a shorter remission, the apyrexia being in different cases more or less complete. It is frequently some time after the application of the remote causes before the disease comes on, as is proved by its not appearing in a ship which has received it there, frequently a fortnight after leaving the port. The peculiarity of its attack is in the symptoms of determination to, and congestion in the head, the throbbing of the temples, flushing of the face, hurry and incoherence of thought. It is in this state that the rapid dissolution which sometimes follows the attack takes place, otherwise the disease will run out to a considerable length, and even for years, with intervals of imperfect convalescence, the complaint then carrying off the patient during a cold fit, or by an attack of dysentery, or rather of colliquative diarrhœa. The other symptoms are nearly as detailed in books. The debilitating effect of the marsh miasmata is generally recognized, (the sedative effects of hydro-carbonate gas, proved to form a considerable part of them, is well known) and it is probable that the nervous energy and muscular irritability, are much and suddenly impaired by their impression upon the sensorium; the powers of circulating the mass of blood are for a time diminished; from that, and irregular actions of the vessels of different viscera, a relative degree of plethora and inflammation takes place, while, from the excretories being similarly affected, the power which the economy possesses to rid itself of an excess of heat is abated. In such a state, it is not surprising that congestions should take place in the brain and glandular viscera, and such symptoms of nervous and vascular excitement, as above related, be the consequence.

This attempt to state the operation of remote and proximate causes is made principally with a view to the treatment, and to inculcate caution as to the means generally resorted to; I mean, in the use of general blood-letting, large and frequently repeated doses of stimulant purgatives, and affusion of cold water. It is probable that less hazard will be incurred, and greater benefit derived, from an immediate restriction to the antiphlogistic regimen in all its branches, especially in abstraction of the stimuli of light, heat, and exercise, in a free but guarded use of calomel and saline purgatives, in sponging the body with cold or tepid vinegar and water. The disease however, in this violence of symptoms, is not very frequent, and it is most commonly seen as described

in

books. At the commencement to avoid emetics, to procure free evacuations of the bowels by calomel, neutral salts, inf. sennæ, c. tart. solub. and when the calomel affects the mouth, the disease frequently disappears. During the first days, and at all times during the hot stage, nitrous, camphorated, or the common saline medicines with antimonial wine. An early recourse ought be had to the use of the bark during the remissions, but it will not be found to be so generally admissible or efficacious as some publications would lead us to expect. Where there is increased biliary secretion, irritability of the stomach, or an obstructed state of any of the viscera, it will be rejected, and the beneficial effects from it precarious. It is proper, however, to give it a trial under different forms when the substance disagrees, and the infusion or decoction may be made trial of along with the tincture, extract snake-root, angustura, vitriolic acid, or other combinations. In whatever form, the doses ought to be as large and frequent as the stomach will bear, during the remission only, and joining it with such a portion of p. rhæi, magnesia vitriolata, or other laxative, as may produce two stools in the 24 hours. More effectual doses of calomel and other laxatives may be given from time to time. In case of the disease resisting these means, small doses of calomel, with or without opium, and continued for some length of time, may be had recourse to. Where there was much retching, fomentations, blisters, and cataplasms, applied to the pit of the stomach, and the saline effervescing draughts, are of use; and where the debility is so great, that danger is apprehended from each returning paroxysm, an opiate given in warm wine will sometimes prevent the accession, and interrupt the morbid habit.

The use of opiates however in these affections, or indeed in any of the diseases occurring in European constitutions in hot climates, is not generally beneficial, nor to be adopted but with discrimination. As there are very different states of the constitution at different periods of the progress of the disease, the regimen is to be adapted to these as they occur; the antiphlogistic, nutritious, and cordial plan of diet must be had recourse to in their turns. The intermittent fevers are occasionally met with in warm climates, and are more prevalent in China than in any other part of the East; there the summer and autumnal heats are succeeded by cool and wet weather; the face of the country is flat, marshy, and subject to be overflowed. The customary practice is followed in the treatment of them. An

emetic

emetic given at the commencement, and repeated from time to time in the course of the disease, laxatives, diminishing the dose and frequency of their administration as it advanced. The bark in different forms and combinations, given as early and as copiously as possible during the apyrexia; and as in such situations, torpor of the intestinal canal and bilious secretions are not unusual, from one to four grains of p. rhæi, or ʒj. of tinctura aloës added to each dose will be proper. Alterative doses of calomel, flores zinci, chamomile flowers with ferrum ppt. in the form of an electuary, were tried in their turns, and found to be useful. Of the effects of arsenic I have no experience. With regard to the compression of arteries with tourniquets, it has appeared to me that where it was early had recourse to, and the paroxysms were stopped by it, a dysenteric action of the bowels was apt to supervene; when the disease was of longer standing, it was extremely useful by interrupting the habit of morbid action, without any such unfavourable consequences.

It may be proper to advert here, to what is called the lunar influence; and however unaccountable the connection between that and the human frame may be, and however sceptical the mind regarding it, a careful observation of diseases in these climates will corroborate the inferences of Dr. Balfour, that the attacks and fatal terminations of febrile disease and of dysentery, a disposition to contraction and retention in the intestinal canal, aggravations of spasmodic and nervous affections take place most frequently during the lunar periods, *i. e.* in 50 hours before and after each new and full moon; he points out diurnal and quarterly effects of the same kind not so observable, as well as equinoctial periods.

What are called bilious attacks, are frequently to be met with in warm climates, and are often perplexing to the young practitioner, to whose mind (if he does not attend to the state of the pulse, which is but little altered) a loose analogy will present the idea of a violent fever from the retching, yellow suffusion of the face and eyes, whiteness of the tongue, general perturbation and irritability. It is to be treated at first by laxatives and gentle diaphoretic medicines, and a liquid abstemious regimen; after the first two or three days, calomel, and the more powerful cathartics may be given.

The purely inflammatory diseases of warm climates are few in number; while in the European constitution, those of a mixed inflammatory description are not unfrequent; this

has is proved by dissections in different epidemics, where an inflamed state of the stomach, of the colon, membranes of the liver, &c. have been detected.

The hepatitis is the inflammatory disease most frequently met with; but a considerable variety of modifications, and very different states of hepatic affection existing under that name, it will be useful to attempt at least to discriminate them. When a constitution such as has been before described, of plethora and accumulated excitability, is first subjected to the stimulus of heat, frequently at the same time the organ itself is locally excited by the application of animal food, spirituous liquors, and other acrid ingesta, with only the intervention of the coats of the stomach, it is not surprising that active inflammation should take place. This is denoted by severe pain in the right hypochondrium, febrile affection, cough, pain at the top of the shoulder, retching, &c. This once induced will be apt to recur as inflammations in other parts, and may terminate in suppuration; but the very acute form of the disease is not that which is generally met with. A morbid sensibility, and readiness of the organ to take on inflammatory action; a want of activity and muscular power in the branches of the vena portarum, giving rise to congestion, and an irregular and vitiated secretion and discharge of the bile; induration of the glands, and obstruction of the vessels, approaching to scirrhus, or actually in that state; and these combined with symptoms of impaired digestion, loss of tone, and increased incitability of the system, are the most frequent varieties of hepatic affection.

We have no accurate diagnosis, by which to distinguish between affection of the liver arising from the above causes, and that which is connected with scrophulous tubercles; nor yet from the mere enlargement of the organ without morbid alteration of its substance or structure, which frequently I believe takes place, when the power of the absorbents in renewing solid parts is diminished; or even from the symptoms produced by a temporary congestion, either in the organ itself or the adjacent viscera, as the stomach, or ascending colon. We are in a similar difficulty to ascertain whether suppuration has taken place or not; it has frequently been found to exist where it had not been suspected; and, on the other hand, where there were several symptoms to denote it, it has not been found. From the matter being shut up, the more decided symptoms of hectic are wanting, and quickness of pulse, irregular febrile accessions, and flushing, are so often attendants of the irritable

ritable state brought on by residence in hot climates, they afford no certain criterion. An obtuse pain in the right hypochondrium is mentioned as being a symptom; but this occurring in all the different states of the complaint, often where there is no hepatic disease, must be a fallacious one. Its being so generally stated by authors to be a diagnostic, has the unfavourable effect of alarming the apprehensions of those who have morbid sensations in that part, and who are in general sufficiently prone to indulge exaggerated feelings or fears on the subject of their health or sensations.

It is obvious, that in all these varieties of disease the same mode of treatment cannot be adviseable; and with a view to practice, it must be ascertained under which of the states the symptoms appearing are to be classed. If under the circumstances, and with the symptoms of active inflammation, general blood-letting is adviseable, and safe to a greater extent than is commonly practised, locally also by cupping or leeches; fomentations, blistering over the seat of the pain, and dressing the blister with mercurial ointment; above all, by mercurial purges given in repeated doses, as calomel from two to four grains every two hours till purging is produced; and when the state of the stomach permits, neutral salts, otherwise the calomel continued; a very dilute solution of tartarized antimony, but never so as to excite vomiting; a total abstraction of the stimuli of light and muscular action, and of heat as far as that can be affected; a diet diluent and vegetable; and these means repeated or continued till the severity of the inflammation is abated. Some torpor or obstruction of the circulating vessels, and pori or ductus biliarii, have, it is probable, preceded this attack of inflammation; at any rate, after the excessive action, they are left in such a state, or in one very ready to assume it. It is then that we may expect the greatest benefit from a mercurial course, conducted by friction of the ung. hydrargyri upon the right side, the blue pill taken by itself, or united with calomel; calomel occasionally in purgative doses; these are to be employed so as to produce some spitting, and the mercurial action kept up by the same means, for weeks or months afterwards; at first, rather a spare diet, and afterwards a more nutritious one; to abstain from stimulating drinks, to use horse exercise, and latterly, but with much caution, tonics or chalybeates, accompanying them with the use of laxatives.

These comprehend the greatest part of the resources in the treatment of chronic hepatitis, or schirrus, and the state

state of the circulating and secretory vessels, which leads to these complaints. When these fail, a removal to the native or a more northern climate becomes necessary; and from this state there are frequent recoveries effected by such a change; but a residence of a complete year is in general requisite before the feelings are pleasurable, or the actions of the economy are restored to their healthful state, and then it is probable that the benefit accrues, when the obstruction is of that kind to admit of being removed by the efforts of the system in the gradual absorption and renewal of solids.

As before mentioned, the diagnostics of the different species of hepatic affection are not well marked. The existence of scrophulous tubercle giving rise to the symptoms of it must be inferred from observations on the habit, and in it, as well as confirmed scirrhus and hepatalgia, or pain seated in the organ, or right hypochondrium, which have resisted repeated mercurial courses, it is best not to attempt by a long protracted use of this medicine to remove it. The irritation and debility induced by it, do more than counterbalance the deobstruent effects of its stimulant operation. A regimen, such as has been before recommended, nutritious, but not stimulant or viscid, taking care not to overload the organs, a total abstinence from vinous, spirituous, or fermented liquors, horse exercise, and even cold bathing. Bitters, tonic and chalybeate medicines, given so combined with laxatives, as p. rhæi or aloes, and perhaps natron, as to be to the intestinal canal a stimulus, such as that which the bile affords, and which in such a state is sparingly and imperfectly secreted; blisters applied to the side; a discharge kept up by issues, or setons placed near to the situation of the pain, will likewise be found useful. In this state also the patient cannot expect a cure, or even effectual relief, but from returning to a colder climate; nor then, but from a long continued and careful observance of the plan of regimen and medicine pointed out.

Case of an Inversio Uteri. *By* Dr. Loffler, *of Petersburg.*

[With an Engraving.]

A Woman of a bloated and full habit, mother of several children, received in her last lying-in, by the rough and improper extraction of the placenta, an inversio uteri; but as

as it was soon replaced by a skilful surgeon, and as the woman was ordered to keep for some time a situation on the back, the uterus perfectly contracted, and remained in its natural situation; shortly after she left the bed, and went to her usual work. In the course of two years she became again pregnant, and during the whole time she enjoyed the best health till the proper time of delivery, which went on rather quickly; and the midwife, instead of protracting it, imprudently accelerated it as much as possible. What had occurred in the preceding delivery took place in this; and the fundus uteri being inverted, descended to the orificium uteri. It was however fortunate that the midwife discerned this accident, and I was accordingly called to her assistance. On examination I found the uterus to have passed through the orifice, and I felt in the vagina a soft and bloody tumour, (*completa partialis inversio.*) The placenta had passed away, and it was a happy circumstance for the patient, that the hæmorrhage was only moderate. As the orifice of the uterus had a little contracted itself, the uterus became slightly incarcerated. I immediately attempted to replace the uterus in the horizontal situation in which I found the woman, but should this not succeed, I intended to lay her forward on the knees and elbows, in which position I certainly hoped to perform the reposition. I attained my purpose however not without some difficulty and pains, by the following method. Having introduced my right hand into the vagina, I spread my fingers round the tumour formed by the uterus, so that the fundus rested in the hollow hand; and having previously compressed it gently, and drawn it a little forward, I endeavoured to push it back by degrees and with gentleness, in which, after some repeated efforts, I at last succeeded. The fundus uteri having thus receded through the orifice of the uterus, I pursued it with my hand, which I kept in the uterus, waiting for the uniform contraction of this organ. But after I had continued in this position above half an hour, without perceiving any contraction, I was obliged to withdraw my hand, when the fundus immediately descended, though it was prevented by the patient's posture on the back with the pelvis elevated, and by introducing a sponge which had been provided with a string into the orifice to pass through it. This circumstance made me think of a perfect atonia of the uterus, which could easily have been avoided if the woman had been delivered in a horizontal posture, in which her labours would not have been so violent, and if the waters had been sooner discharged

discharged, and the head of the child suffered to pass through by degrees. After the patient had reposed a little, I applied cold injections of vinegar and water, which mixture was also often thrown by means of a syringe on the belly; but as this remedy would not produce the least contraction, I had recourse to stronger stimulants, injections of brandy, of salt water, and of water of ammonia, ordering at the same time the belly to be rubbed with vinegar, and giving excitant remedies internally. All my endeavours however were ineffectual, and after having continued these applications above twelve hours the uterus remained in the same state as before.

I now desisted from the application of external and internal excitantia, and also from the employment of stronger ones, being fearful of bringing on an inflammation, which I knew from experience to be always dangerous in an atonic or paralytic organ; and adopted a mechanical expedient for removing the inversion; and though I could have prevented a total inversion and prolapsus out of the vagina by means of a pessarium, I could not acquiesce in having recourse to it, before I had tried another expedient which presented itself to my mind, and which I flattered myself would be capable of effecting a perfect cure, by keeping the fundus uteri at a distance from the orifice and by elevating it, so as to render the uterus fit for contraction with the assistance of proper remedies, and thus to make a radical cure. For this purpose I procured a tube, made of horn, long enough to reach up to the fundus uteri; it was bent according to the axis of the pelvis, and had two holes on the upper extremity, by means of which a sponge could be fastened; at *a*, the lower extremity, another hole was made, through which a string was drawn, which could be fastened to a bandage round the belly, whereby the instrument was kept in its proper situation. With this instrument I gently pushed the fundus uteri upwards, and supported it in the proper situation. This operation being performed without much difficulty, and attended with little pain, the patient felt no kind of inconvenience, and the lochiæ passed off with ease. By making this support of the uterus hollow, and by providing it at the upper end with several holes, I had the advantage of being able to make injections into the uterus without difficulty, which was performed twice a day, with a decoction of flores arnica, in order to excite the paralytic powers of that organ. When this had been continued several days, during which the patient remained quietly in

bed, she felt some pains, which gradually increasing, became exactly like those of a woman in labour, whereby the uterus contracted, till the instrument was entirely protruded out of the uterus, and I could take it easily away. On examination, I found the uterus perfectly contracted and the orifice shut. I ordered injections into the vagina to be continued with a decoction of willow (cort. salic. fragil.) The patient gradually recovered her health and strength, and was completely cured of the complaint.

EXPLANATION OF THE PLATE.

a. a. The intestinum rectum.
b. b. The vagina.
c. The orifice of the uterus.
d. d. The uterus.
e. The lower extremity of the instrument with which the uterus is supported.
f. The upper extremity where the sponge is fastened.
g. g. The string by which the instrument is fastened.
h. h. Openings in the hollow supporter, through which the injected liquor passes.
i. Part of the thigh.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE discussions which have taken place respecting that species of tumour, mentioned in my volume of *Practical Observations* lately published, to which I have given the name *fungus hæmatodes*, seem to call for some attention on my part; as it is of consequence to mankind that diseases should be accurately known, and carefully distinguished.

Your valuable correspondent, Mr. Simmons, of Manchester, is of opinion, (see Journal for July 1803) that the disease is a spurious aneurysm; while another gentleman of great experience, who takes much interest in the newly established Institution for the investigation and cure of cancerous diseases, is pleased to consider the fungus hæmatodes as a species of cancer.

A difference so great in the ideas of medical men, respecting the disease in question, will naturally excite a suspicion, that there is something obscure in the nature of the

the complaint, or in the description given of it. The subject may, therefore, merit a little farther investigation.

Before I proceed to examine the opinion of Mr. Simmons, I must observe, that he considers the disease of the knee-joint, described by Mr. Russell of Edinburgh, and called by him "an uncommon disease," as the same which I have described under the term of *fungus hæmatodes*. (See Med. & Phys. Journ. for July 1803, p. 2.) But whoever will carefully compare our descriptions must see a considerable difference between them.

1. Mr. Russell considers the disease, which he describes, as peculiarly affecting the knee-joint; whereas I have never yet seen the fungus hæmatodes affecting that joint, though I have seen it in most parts of the human body. Although the tumour in Case 1,* began on the side of the knee near the patella, and remained fixed in that part above half a year, before it extended up the thigh; yet, after amputation, "the joint of the knee was found to be perfectly sound." †

2. Mr Russell describes the substance forming the tumour in his cases as "almost transparent and colourless, and a soft gelatinous consistence." p. 75. Whereas the fungus hæmatodes has always, after amputation, been found by me quite opake, "of a variegated reddish colour" mixed with white or grey, and of a greasy or unctuous nature, "nearly resembling the medullary part of the brain." p. 237.

3. In Mr. Russell's cases, "every patient," (except one, whose disease was somewhat different from the rest) "on whom amputation was performed, died from the hæmorrhage—which invariably occurred in every case of the disease, and at very different periods from the date of the operation." p. 77. On the contrary, all the patients, upon whom I have seen amputation of an extremity performed for the fungus hæmatodes, have recovered without any disposition to hæmorrhage subsequent to the operation.

These circumstances certainly point out a material difference in the nature of the diseases described by Mr. Russell and myself; I shall, therefore, confine the following remarks to the cases which I have related, and proceed to shew, that several of them bore no affinity to the spurious aneurysm, nor to cancer.

In performing the operation of amputation in Campinet's

* Practical Observations, p. 233. † Ibid. p. 239.

net's case, (Case 1, p. 231) I left a small superficial part of the sac, near the extremity of the stump, not doubting that this wound in the integuments would soon granulate, and heal together with the extremity of the stump. No surgeon, I suppose, can imagine that this superficial sore could cause a spurious aneurysm. "The granulating flesh upon the stump became good, and the progress of healing was favourable." Nay, "that small and superficial part of the great sac—was healed;" yet a tumour rose beneath the cicatrix, containing a soft substance, like the brain, which formed for itself cells in the surrounding parts. Two attempts to extirpate this substance proved fruitless, so that I was obliged to amputate a second time, when I found the femoral artery not "incontracted," but impervious.

In Mrs. Storr's case (Case 4, p. 264), I extirpated a tumour in the mamma, and "about six weeks after the complete cicatrization of the wound, Mrs. S. began to feel a constant uneasiness in the part, and perceived it to be tumefied." Has such a disease as this any affinity with the spurious aneurysm? Yet this tumour was formed by a mass of unctuous matter, similar to that described in the first case.

Again, I extirpated the whole of this mass, with the assistance of Mr. Lucas," so that "no part of the integuments was left that had the least morbid appearance; and the disease seemed to be completely removed." p. 266. "The wound was soon filled with good granulations, and the cure proceeded in the most favourable manner for three weeks." Surely Mr. Simmons will not say, that there was any circumstance in this case that could give rise to a spurious aneurysm? The whole case completely excludes any such idea. Let any experienced surgeon read this case with attention, and he must acknowledge, that the morbid fungus, repeatedly formed, and repeatedly removed, can never with any propriety of language be classed under the head of spurious aneurysm.

The same reasoning will apply to such cases as that of James Richardson, where the tumour was situated "on the posterior part of the shoulder,"—"between the integuments and external muscles," (Case 9, p. 277, 278.) and "had arisen to a considerable size before the patient was aware of its existence." He remembered no circumstance that could have given rise to this tumour. He died about ten months after I last saw him. His widow informed me lately, that a substance broke through the skin about ten

weeks

weeks before his death, and grew to the size of a man's head. It bled frequently, as if blood had been squeezed from a sponge.

Mr. Simmons supposes that I, and others who saw the operations which I have described, were deceived in thinking the morbid masses to be organized, and declares, "that he cannot yield assent to the existence of it" (organization) "until injections have fully established the fact."—He imagines, that upon our handling the masses, we only made way for the flux of blood recently effused from the ruptured arteries. But Mr. S. in this objection, overlooks the fact related by me, that in several of the cases blood issued from the masses when they were not handled. In Mr. Ward's case (Case 6.) the fungus bled considerably after it had been punctured with a lancet by an old woman, under whose care he had placed himself, p. 271. The delay of a week in performing the operation, which arose chiefly from his own reluctance, was the cause of his being "much reduced by the loss of blood from the fungus," p. 271, though his leg was kept still in a horizontal position during the greatest part of this interval.

In the case of Ann Wood, (Case 10.) who was Mr. Logan's patient, a hæmorrhage took place from one of the excoriated parts" of the fungus, "three months before her admission" into the Infirmary, "at which time she lost about eight ounces of blood, p. 280. The fungus bled repeatedly, though in small quantities after the young woman was taken into the house. If Mr. S. had been present when Mr. Logan and I saw blood issuing from the excoriated parts of the tumour, I suppose he would have thought the hæmorrhage before amputation as good a proof of the organization of the mass, as an injection after the operation.

As Mr. S. seems disposed to deny the existence of the fungus hæmatodes, as a disease sui generis, I rather wonder that he takes no notice of Mr. Burn's dissertation on *Spongoid Inflammation.* This disease agrees in so many particulars with the fungus hæmatodes, that I am inclined to consider them as one, though Mr. B.'s description does not intirely coincide with my own. He mentions the enlargement of the lymphatic glands as a common occurrence in the disease, and as rendering the amputation of an extremity unsuccessful, unless performed at an early period. Whereas in five cases of the fungus hæmatodes on the extremities, in which amputation was performed after the disease had subsisted a considerable time, no enlargement of the lymphatic glands was perceived, nor did any subsequent

sequent affection of these glands render the operation abortive.

As the fungus hæmatodes is often formed under circumstances which exclude the idea of a spurious aneurysm, so also is it distinguishable from a cancerous affection.

This usually, I might perhaps say always, begins with some degree of schirrous hardness in the part affected. Such induration takes place not only where the glands are the seat of the disorder, but also in cancerous affections of the viscera and common integuments. The uterus first becomes schirrous, and the vagina is beset with tubercles before ulceration commences. Whereas the fungus hæmatodes feels soft, spongy, and elastic, though unequally so. While it remains covered with the common integuments, it often gives the sensation in some parts, when handled, as if some fluid lay deep seated within it, while other parts feel as if there was a thickening of the common coverings of the body.

When a cancerous tumour becomes ulcerated, it throws out an excrescence somewhat resembling the head of a cauliflower. But I have seen the fungus hæmatadoes burst through the skin without the slightest induration of the surrounding integuments. The fungus did not then appear like a cancerous excrescence, but rose with a dark coloured surface somewhat resembling coagulated blood, yet apt to bleed freely.

The fungus which repeatedly arose in Mrs. Storr's breast (see Case 4.) after the wound had been cicatrized, or filled with good granulations, had not at all the cancerous aspect. It was soft, of a greasy consistence, and was not surrounded with an indurated margin.

Such cases as that of Ann Wood, (Case 10.) bear the greatest resemblance to cancer; but they differ in their origin, and in the texture of the mass, when divided after amputation, which shews nothing schirrous, but resembles the brain in consistence; and with respect to its colour, has a variegated appearance.

The case of Mr. Ward (Case 6.), to which I have already referred, shews a manifest difference both from spurious aneurysm and cancer.—But I will not enlarge on this subject—The cases and observations which I have already published are faithful copies from nature; and a little time will, I doubt not, convince the judicious practitioner, that there is a disease, of a peculiar nature, to which I have given the name of FUNGUS HÆMATADOES, which has not been received into the list of diseases by the most eminent nosologists.

nosologists. A disease which proves certainly fatal when left to itself, and for the cure of which no remedy has been hitherto discovered except amputation of the limb, when it has happened to be seated on one of the extremities of the body.*

I am, &c.

Leeds,
Jan. 1804. WILLIAM HEY.

Abstract of a Memoir on the Febrifuge Principle of Cinchona, by CIT. SEGUIN.

THE object proposed to himself by the author in the task he undertook was, to point out the means of knowing with certainty the true febrifuge principle of cinchona; to distinguish the species that contain it from those that do not; and, lastly, to appreciate its quantity and quality.

Hitherto the sight and taste have been the only tests of the presumable qualities of the Peruvian bark of the shops; but as these have no precise standard, and are inapplicable to powdered bark, they very imperfectly indicate the presence of the febrifuge principle. It was of importance, therefore, to substitute to these means, little better than illusory, others not only capable of calculation, but likewise invariable. Chemical re-agents alone can answer these ends.

In consequence, Cit. Seguin began by isolating the respective properties of all medicinal substances, and he examined the action they exert on all other chemical substances.

These researches led him to develope very decisive characteristics in the febrifuge principle of cinchona, which place it in a perfectly distinct class. The following are its characters.

It precipitates the solution of tan, but not the solutions of gelatine and sulphate of iron.

When cinchona has not all these characters, it is a proof that it is mixed with something else, or that it does not contain the febrifuge principle.

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* Under some favourable circumstances a tumour of this kind might probably be extirpated from some other part, if an opportunity was afforded before the fungus had sunk deep, and formed pouches in the surrounding soft parts.

The author has subjected to this analysis all the known species of cinchona, found among all the druggists and apothecaries of Paris and Versailles, and constantly obtained the same results.

Unfortunately, these researches have shown, that [illegible] infinitely small quantity of good, unmixed cinchon[illegible] be procured in the shops; the greater part being [illegible] destitute of the febrifuge principle, or mixed, or of [illegible] very inferior quality, though containing no mixture.

These results are of so much the greater importance, because the effects of different kinds of cinchona, in fevers, are only in proportion to the greater or less quantity of the febrifuge principle they contain; and those which contain none, as well as all the substances that may be mixed with them, are more or less injurious to the system.

The experiments of Cit. Seguin on the febrifuge principle of cinchona, having convinced him that most of the bark found in the shops was injurious or inefficacious, because it was spoiled by keeping, adulterated by mixture, or deprived of the febrifuge principle; he has endeavoured to obtain a febrifuge principle always the same, more efficacious, more certain in its effects, more capable of assimilation with our sysem, and so cheap, that there could be no temptation to adulterate it.

To attain this important object, the author has inquired what the true cause of fevers, as of their effects, is; what the nature of the febrifuge principle of cinchona, and what its action on our system. He has subjected to the action of the re-agents pointed out for the febrifuge principle of cinchona, all chemical and medicinal substances; and assured himself, whether such of these substances, as might contain the febrifuge principle, did not contain, at the same time, other substances prejudicial to the animal economy. Lastly, he had to cure fevers by the help of these remedies, and then confirm this theory by repeated experiments. Such is the course Cit. Seguin has pursued.

The new febrifuge principle, which he proposes to substitute instead of cinchona, because it unites all the advantages of the bark, without any of its inconveniences, is gelatine in its pure state.

Considered in a medical, economical, and political view, gelatine promises much greater advantages than bark, in its application to the cure of fevers. It occasions no irritation; procures quiet sleep and gentle perspiration; keeps the belly open, without producing cholic or nausea; has no unpleasant flavour; restores the strength, and is digest-

ed

ed even by the weakest stomach, that would reject the bark as soon as administered.

On the other hand, cinchona irritates the system, disturbs the sleep, has a disagreeable taste, frequently occasions costiveness, and is very indigestible.

In an economical view, there is still greater difference between cinchona and gelatine; the price of the latter being to that of the former, at most, as one to thirty-two.

Lastly, gelatine is indigenous, cinchona is not; and the purchase of the latter requires us to send abroad a very considerable sum of money, which might be kept at home by adopting the use of gelatine.

To this memoir the author has subjoined thirty-seven cases, in which he performed a cure with gelatine, under the eyes of some respectable physicians, and he has desired a Committee to be appointed, to repeat his experiments, and report upon them.

Accordingly, Citizen Portal, Desessarts, Hallé, Fourcroy, Berthollet, and Deyeux, have been nominated for this purpose. Their experiments are made at the School of Medicine, in a room exclusively appropriated to these inquiries; already a great number of patients have been cured; and the Committee will soon make their first report on these cases.

The Case of the Abbe Mann.

THE following case of severe Gout, successfully treated, has excited much attention on the Continent; and from the respectability of the channel through which it has been received, we cannot doubt the fidelity or accuracy of the relation. Our readers will perceive the language of the humoral pathology, which still prevails on the Continent, and some theoretical opinions which are obsolete here; but we did not think ourselves justified in any alteration.

Some have doubted whether this was a case of simple genuine gout; our readers will exercise their own judgments on this subject, and no doubt all will agree that the sufferings of the patient were uncommonly severe, and the success of the remedies was so complete, as to entitle them to farther trials in similar affections.

To

To the Editors of the Esprit des Journaux.

Gentlemen, *Brussels, Dec. 31, 1803.*

THE very extraordinary change in the state of my health which I have experienced within a few years, has induced many of my friends, who have witnessed it, earnestly to request me to prepare the following statement of the means by which this improvement has been produced. Having been advised by them, and by several medical practitioners, to communicate it to the public, in the hope that others, suffering under the complaint with which I was so long afflicted, may derive some benefit from the communication, I must beg, if you should entertain the same opinion, that it may be inserted in your Journal.

I have the honour, &c. &c.

The ABBE MANN, Canon of Courtray, &c.

Account of a remarkable Case of inveterate Gout, cured by a long Exhibition of Extract of Hemlock, and of Aconite or Monkshood, prepared according to the Prescription of M. Storck.

The Abbé Mann had been accustomed, in his youth, to a life of great personal activity. At a very early age, he had acquired a decided taste for study, and after passing through the usual course of education, continued to devote, to scientific pursuits, every interval of leisure of which he could avail himself amidst the duties of his profession, and during long and frequent marches. This predilection for study, and the love of solitude which it naturally inspired, determined him, at the age of twenty-five years, to leave Spain, and to quit the army, with a view to enter into a Carthusian Order in Flanders.

In 1763, in the twenty-ninth year of his age, he was affected with arthritic pains, which, at times, were somewhat acute, and continued for several months, without his being able distinctly to ascertain their cause. The pains in the feet were not so considerable as to prevent him from walking; but he was scarcely ever entirely free from them, either during the winter of 1763 and 1764, or in the following spring. About this time he was nominated Prior to the Carthusian Monastery at Nieuport. A few days afterwards, he became seriously indisposed with a continued fever, which was shortly succeeded by a regular fit of the gout in both feet. The fever continuing with some degree of violence, his physician improperly directed him to be bled no less than three times. This mode of treatment produced

produced an effect, which might easily have been foreseen. The gout was removed from the feet; but the patient experienced nausea, faintness, and sickness, of which he never felt any thing while the gout was confined to the extremities. This indisposition continued six weeks, and the Abbé recovered his health with great difficulty, and very slowly.

During the remainder of the year 1764, and in the spring of 1765, he had several slight fits of the gout. They sometimes affected the feet, but, for the most part, were fluctuating and irregular.

The duties of his profession, and his private affairs, rendering it necessary for him, after his recovery, to take continual exercise, either on horseback or on foot, his constitution became so considerably strengthened, that, during a space of two years and a half, he had no return of the gout, and experienced no serious illness of any description.

Before entering on any detailed account of the remedy to which the Abbé had recourse, it may not be improper to point out, in a few words, the most apparent predisposing causes of his very arthritic constitution. According to *his best judgment*, they appeared to him to be the following.

1. From the year 1756 to 1764, he studied with intense application, seldom less than thirteen or fourteen hours daily; returning to this arduous employment immediately after his repasts, and frequently trespassing on the time which Nature has destined for repose.

2. After entering into the Carthusian Order, he had few opportunities of taking exercise.

3. The difference between the climate of Spain and that of the Flemish coast, and the extreme cold to which he was exposed in the winter season; being daily employed at church four or five hours, and often more, beside three hours at least during the night. Circumstances of this description could not fail of materially injuring the constitution.

4. The privation of that repose which Nature requires, especially after his appointment in 1764 to Superior of the Order. His rest was frequently limited to three or four hours, after one o'clock in the morning. In 1769, the very feeble state of his health compelled him, however, to change this practice.

5. Indefatigable application to study, prosecuted with as much and often more ardour at night, than during the day.

In the opinion of the Abbé Mann, these are the principal circumstances which rendered his constitution so susceptibly

ceptibly arthritic, that, from the autumn of 1768 to the summer of 1779, he annually experienced two, three, or four attacks of this excruciating complaint. He may venture to assert, with the greatest truth, that, during this long interval, he has seldom enjoyed for more than three or four months in the year, a moderate degree of health, unaccompanied with pain, arising from regular or irregular symptoms of this disorder. A short account of some of the most severe attacks, with which he has been afflicted, will more distinctly explain the circumstances of his case.

In the month of September, 1768, he was attacked with the gout in the stomach, which continued a fortnight, with the ordinary symptoms of nausea, sickness, &c. &c. The disorder afterwards affected his chest and lungs, and occasioned much difficulty in respiration. His physician ordered that he should be twice bled in the feet; but this, for some time, only aggravated the complaint.

In January, 1770, he was obliged to proceed, on private affairs, to Brussels and Molines. The season was extremely severe, and he felt the symptoms of an approaching fit of the gout. The pain which he endured during the journey, was inexpressibly acute; especially in the stomach and the kidnies. Upon this occasion, he was afflicted with the gravel, which afterwards accompanied every attack of this complaint. It was with great difficulty, and inconceivable pain, that he returned to Nieuport, after an absence of three weeks.

His physician directed cataplasms to be applied, which fixed the gout in his feet and right hand, where it continued, with the regular symptoms, four or five weeks. The cataplasm, applied to the left ancle, drew the arthritic humours so powerfully to that part, that they pierced the skin above the inner bandage, and continued in a state of discharge for several months, producing in the left leg a degree of weakness, of which the Abbé is still sensible. In March, and at a time that he thought the fit had left him, the gout returned; attacking the viscera, the stomach and the kidnies. This paroxysm returned every eight or ten days, till April 22, when it was accompanied with the most violent and acute pains, excruciating nervous affections, and continual vomiting after taking medicine, food, &c. In this alarming state, in which his life was almost despaired of, he remained during four days and three nights, without an instant of repose. It is utterly impossible to convey an adequate idea of the agony which he endured. He had several relapses before the end of May, and

and the frequent vomiting continued more than a twelvemonth afterwards. During the nine years the Abbé was afflicted with the gout, he was constantly subject, as will appear in the sequel, to indigestion and the most violent heart-burn.

In the two following years, he had several fits of the gout, for the most part regular, which affected the feet and hands, but were not accompanied with excessive pain. The right hand, and the right and left foot, were always first, and successively, attacked; and lastly, though seldom, the left hand. These paroxysms generally continued three or four weeks. But, at the beginning of 1772, he had a fit which lasted twice as long; affecting, at the same time, both feet and the right hand, and producing the most acute pain. This was one of the most violent regular fits of the gout which the Abbé ever experienced.

At the commencement of the summer of 1772, finding himself constantly in a state of fluctuating debility, and subject to continual indigestion, heart-burn, and violent sickness, he was advised by several of his friends, to have recourse to the regimen prescribed in Dr. Cadogan's treatise on the gout; a work which had acquired in London some degree of reputation. This regimen consists chiefly in taking exercise in the open air, avoiding every species of fermented liquor, and food that has a tendency in digestion to produce acidity. The Abbé was persuaded to try this mode of cure; and, notwithstanding the feeble and relaxed state of his stomach, continued the practice of drinking water for four months, and observed all the injunctions of the regimen, as far as the circumstances of his health would permit. During this interval, he twice felt the symptoms of an approaching fit, which even continued for a few days, and afterwards entirely disappeared, without producing any regular attack of this disorder. In the mean time he was reduced to a state of great debility, in which he continued till the end of September, when he was attacked with the gout in the viscera, accompanied with the most alarming symptoms. This dreadful fit, the most violent and dangerous which he ever experienced, continued through the winter till April 1773; a period of about seven months. It should be observed, that in 1770, the gout attacked the Abbé in the stomach and the abdomen. This fit was of a different description, for it affected the stomach, the chest, and the head.

The symptoms, which frequently recurred, of this latter species of arthritic attack, were, nausea, sickness at the stomach,

stomach, and faintness. After remaining some hours in this state, the respiration became gradually impeded to so great a degree, as, at times, entirely to cease; renewing itself at intervals. He afterwards felt a suffocation and strangling, as if the neck was closely compressed with a bandage. This was succeeded by a sensation of a cold humour propelled towards the head, which successively affected the eyes, the ears, and the tongue. The latter swelled so considerably, that it entirely filled the mouth, and lost its muscular motion. Thus deprived of sight and of speech, he could only hear those who were near him, as if they were speaking at a distance. He entirely lost the power of motion, except in the fingers of the left hand, and almost ceased to have any external sensation. *His presence of mind, however, was not in the least affected.* In these circumstances, the strongest cataplasms, and afterwards, blisters, were applied to the feet. In order to recover him from this lethargic state, which, it was supposed, might produce either apoplexy or arthritic paralysis, the physicians ordered him to be shaken with some degree of violence, and the soles of his feet to be rubbed, although excoriated with the cataplasms and blisters. So long as he continued in this state of lethargy, or rather of privation of almost all external feeling, he was scarcely sensible of any impression from the violence of these operations. But, in proportion as he revived, these parts became affected with inexpressibly acute and shooting pains. In the space of about two months, he experienced above twenty attacks of this description; the shortest of which continued about eight hours, and the longest about eighteen. Upon more than one occasion, the physicians conceived him to be on the point of dissolution, and even expressed this opinion. The 1st of September it was supposed that he could not survive the night. A few doses of diaphoretic antimony (antimonium calcinatum) occasioned a sort of crisis, and produced a copious perspiration, which continued an hour, and probably saved his life, by thus promoting a discharge of arthritic humours. He was however, reduced to a state of extreme weakness. In the intervals of these internal attacks, the gout violently affected the feet, the legs as far as the knees, and the right hand and arm. The acute pains and nervous affections, which he endured, exceed all description. Nor did he suffer much less from arthritic colic and the gravel; and the humours which he discharged by vomiting were scarcely less acid than nitrous spirit.

In

In this afflicting situation, the Abbé remained during a great part of the time from September to December 1772. For three months afterwards, he had occasional fits of the gout; but they were considerably less violent, and did not affect the intestines. After this, he recovered his health gradually, but very slowly. During the space of two years, however, he felt, on the right side, from head to foot, a species of oppression and numbness, which evidently arose from this part having been frequently attacked with so many violent fits of this disorder; but, in time, these symptoms also disappeared.

In order to prevent the return of the gout, he was advised to have recourse to issues; and, in the autumn of 1773, he had an issue opened under each knee. Either from the effect which they produced, or from some other circumstance, the fits which he afterwards experienced became much less violent and dangerous, than those with which he had been attacked in 1770 and 1772. From this period to the year 1777, he had annually three or four fits of the gout, in the feet and the hands; but they were always more or less irregular, and accompanied with sickness at the stomach, nausea, and other symptoms, which indicated an arthritic affection of the intestines. These attacks generally continued three or four weeks, and were regularly succeeded by the gravel, which lasted a month or six weeks, attended with most acute pain, and a considerable discharge of red sand in the urinary secretions. When free from the gout and the gravel, he enjoyed but a moderate degree of health during three or four months of the spring and the summer. The remainder of the year, he suffered under a languishing and fluctuating debility, which terminated in the painful symptoms of an irregular arthritic affection, that seemed to attack the whole frame.

In the summer of 1777, the Abbé changed both his religious order and his residence. The late Empress-Queen had solicited, and obtained, from the Pope, the secularization of the Carthusian Order, which she afterwards established at Brussels. It might be supposed, that a change of climate, and a total change in diet, and in the mode of living, would have produced a material improvement in the state of his health. On the contrary, during the two following years, he was as much as ever afflicted with the gout, and its consequences. He was always either infirm, or attacked as formerly, with regular fits of this complaint.—Indigestion, heart-burn, and incapability of walking, or taking exercise, increased instead of diminishing.—

Half

Half an hour's exercise fatigued and exhausted him so much, as to endanger bringing on fainting fits. Every one advised him to take exercise, as the only remedy for his disorder; but he was entirely incapable of attempting it, from the stiffness of his joints, and his extreme weakness.

In this state he remained till the autumn of 1778, when he felt the predisposing symptoms of a violent arthritic attack. He was affected with the gout in the beginning of November. It extended to the viscera, the stomach, and the head, with symptoms and effects similar to those already described as accompanying the fit in October 1772. He continued some days in this state; the fit becoming afterwards more severe, it was judged proper to apply blisters to the calf of the legs. They had the good effect of drawing the arthritic humours from the intestines, and produced a partial discharge. But the Abbé remained long extremely faint, and in a very weak condition; and repeatedly experienced slight fits, after a few days interval, till the following spring. The capability of walking, or of taking any exercise, became more than ever enfeebled, and his powers of digestion so very weak, that all his food was converted into acrimony, and produced continual vomiting, sometimes even blood. His constitution had long been extremely relaxed; but this relaxation, since the last fit, was more considerably increased than ever. The diet he was obliged to observe, while in a state of convalescence, and during Lent in 1779, contributed without doubt to produce this effect. It may be farther remarked, that this excessive relaxation occasioned also a nervous affection, which he had never before experienced; at least, not, by any means, in so violent a degree. The whole nervous system seemed to be attacked by the acrid humours of the gout, producing spasms, nervous affections, and dreadful irritation. If the Abbé experienced more acute pain, in the severe fits with which he was afflicted in 1770 and 1772, than in the present, yet, what he then endured will admit of no comparison with the agony occasioned by this nervous irritation; for it affected the mind as much as the body, and rendered life itself insupportable.

Such was the condition to which the Abbé Mann was reduced in the spring of 1779; disgusted with physic and physicians, and entertaining but little hope, and even little desire, of a prolongation of life; which, in fact, was become a state of perpetual suffering. His situation interested in his favour a number of very respectable persons, who

who induced M. Himmelbaur, a surgeon on the Staff of the Imperial Army, to visit him in the character of a Friend and Physician, and gradually to acquire his confidence. In this object, he succeeded towards the end of spring, and persuaded him to a total change of diet; prescribing, at the same time, medicines of a mild and sedative quality. After some time, the Abbé proposed to this skilful practitioner, the internal exhibition of hemlock, which he considered merely as a sedative. M. Himmelbaur approved of the proposition, and declared it to have been his wish to try this remedy, but that he had felt some difficulty in proposing it. He added, that, in his opinion, extract of hemlock was not only a sedative, but a powerful corrector of acidity of the humours, and well adapted to strengthen the powers of digestion. In consequence of this resolution, the Abbé began, in April, 1779, to take the extract of hemlock, prepared at Vienna in the manner prescribed by Baron Storck; to which M. Himmelbaur, some time after, added a just proportion of extract of aconite, or wolfsbane, prepared also at Vienna, according to the formula of the same celebrated Physician. From this place, the Abbé always procured these medicinal extracts. They were exhibited in the form of pills, containing each two grains.

He began by taking, three times a day, four pills of extract of hemlock. In proportion as he became accustomed to them, he increased the dose, taking at the same time a pill of extract of aconite. In five or six months, he had gradually augmented the daily dose to 100 and 120 grains; observing, however, the proportion of five or six pills of hemlock to one of aconite.

In these quantities he continues to take them, but in much smaller doses than during the two first years, when he was constantly exposed to arthritic affections. He afterwards added to the pills the following mixture prescribed by M. Himmelbaur.* Take of camphor, mucilage of gum Arabic, and sugar, each one drachm. Let them be well mixed, and add half a drachm of purified nitre, half an ounce of white wine vinegar, and six ounces of syrup of red poppies. He also took occasionally a dose of rhubarb. These are the only medicines which the Abbé has made use of during the last four years, confining, how-

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* ℞. Camphoræ, mucilag. g. Arabici et sacchari, singulorum ʒj. bene tritis et mixtis, adde nitr. potassæ ʒß. acid. acetos. ℥ß. syrup. papav. errat. ℥vj. M. fiat mixtura.

ever, his regimen to nutritious food of easy digestion.—The following are the effects which resulted from this mode of treatment.

During the first three months, the hemlock produced no perceptible effect; he began even to despair of deriving any benefit from it. But M. Himmelbaur incessantly exhorted him to continue taking it, with an addition of extract of aconite. He followed this advice, and in a short time the stiffness of his joints was materially removed, and his capability of taking exercise considerably increased. The spasms and nervous affections began sensibly to diminish. Encouraged by this success, he zealously prosecuted this mode of treatment, and before the winter, he exhibited these extracts in the largest doses. His digestion became stronger, and the acrimonious humours in the stomach, with which he had been so many years afflicted, proportionately decreased. Great progress towards a cure was thus effected. During the winter of 1779 and 1780, the Abbé frequently suspected an approaching fit of this disorder. The winter, however, elapsed without any return of the gout, and, in the ensuing spring, he was able to walk with ease, his joints having acquired strength, and their stiffness being gradually removed. He availed himself of this improvement in his health to take more exercise, which he continued, without interruption, both in winter and in summer. But the most remarkable circumstance attending this mode of treatment relates to the powers of digestion. He now suffered but little from heart-burn and indigestion, though formerly he was perpetually subject to them. If, accidentally, he experienced any inconvenience from acrimonious attacks, a few pills of hemlock or of aconite immediately removed them, and in a more effectual manner than magnesia, or any other absorbent, without any of the consequences which magnesia usually produced.

During the winter of 1780 and 1781, he felt several symptoms of the gout, but without experiencing any fit whatever. Since that time every symptom of the complaint has entirely disappeared. His health is so far re-established, and daily acquires such an accession of strength, that he is no longer affected with heart-burn, indigestion, nervous attacks, or any symptoms of this description. He is capable of walking eight or ten miles, without resting himself, and without feeling any inconvenience from the exertion. It may be proper to observe, that

that his corpulency is considerably reduced by the effect of these solvent remedies, as well as by exercise.

Another circumstance proves how much the constitution of the Abbé has been strengthened by a long exhibition of the remedies already described. During sixteen years, he had been subject to a chronic complaint, accompanied with almost every species of acrimony; but he had never been in the least affected with any bilious disorder. He has since, however, been obliged to have recourse to the juice of lemons, as a remedy for this complaint. The intense heat of the summer of 1782, and a diarrhœa, with which he was four times attacked in the months of July and August, and which he stopped by astringent and constipating diet, instead of employing aperient medicines, produced a bilious inflammatory fever. This fever relieved itself, in a great degree, by an erysipelas in the left leg; and the bile was no sooner evacuated, than the Abbé was obliged to resort to extract of hemlock and aconite, in order to correct the heart-burn occasioned by this indisposition.

The medicines produced their full effect, and his health is now more firmly re-established.

The Abbé Mann has thus faithfully recited an incontestable fact; the practical conclusions which may be inferred from it, he leaves to the judgment of others.

To the Editors of the Medical and Physical Journal.

Gentlemen,

I AM induced to trouble you with the following remarks on a peculiar plan of treatment of Croup, from a hope, that through the publicity and extensive circulation of your valuable Journal, a remedy which promises considerable success, and which does not appear to have been hitherto known or appreciated in proportion to its merits, may be brought before the medical public, with a view to ascertain and establish its apparently intrinsic worth. The exhibition of calomel, as a curative means in Croup, is not new; but its use appears to have been confined to individuals, or particular places. Mr. James Anderson, sen. of Edinburgh, was, I believe, the first who publicly noticed it, in a paper on the subject in Dr. Duncan's Annals of

Medicine for 1799. He exhibited it on the authority of a physician of eminence, who had heard of its efficacy in this disease in America; and in four cases he states, it appears to have been decidedly beneficial. The utility of it he further confirms in a subsequent paper in the above-mentioned work for 1801, where he also mentions his having found it requisite to administer it more liberally in urgent cases.

Mr. Rumsey, a surgeon in Buckinghamshire, has inserted in a work, entitled, "Transactions of the London Society for improving Medicine and Surgery," an ingenious paper on Croup, in which several cases are related, successfully treated by calomel; he ingenuously owns, however, that in two instances which occurred to his brother, it was given without good effect; but its failure of success in these, if treated with a proportionate quantity of mercury to that given by Mr. Rumsey, I should be much disposed to attribute to the insufficiency of the dose, and the too long intervals suffered to elapse between each exhibition. In two confirmed cases, to be noticed hereafter, much larger quantities of the medicine were given; and after considering the rapid progress of inflammation in the trachea here, the increase of danger from every delay in the use of the most active remedies, and the large quantity of mercury that children will bear without producing any sensible effect, I cannot help thinking its use might be safely extended. Dr. Cheyne, in Essay 1, (on Croup) of his splendid work on the diseases of children, observes, that "it has been proposed to give children calomel under this disease, throwing it in quickly with a view to produce salivation—that he had ordered it in the second stage but never found it of any service." In most of those cases I have heard of being cured by it, no degree of ptyalism was brought on, nor any obvious effect, except that of powerfully debilitating, and producing the singular phenomenon of dark green stools, the appearance of which has by some been regarded as the criterion for desisting from the further use of the remedy. Several interesting cases of cynanche trachealis, successfully treated by this plan, were related at the meetings of the Lyceum Medicum Londinense during the last session, by Mr. Robinson, an ingenious practitioner then in the army; and his evidence in favour of this medicine was corroborated by an obliging letter from Dr. Hamilton of Edinburgh, who had also exhibited it with great success. Mr. Thomas, of Leicester Square, a gentleman of known science and abilities, also mentioned

mentioned a case, at one of the present meetings of the Lyceum, which had just occurred to him, and in which he had effected a cure by the free use of the same medicine: To a child of 12 months old, six grains of calomel were at first given, and repeated in four hours, and two grains every two hours after, till thirty grains had been taken; when the peculiar appearance in the stools was produced, the medicine was desisted from, and the child recovered.

I shall now beg leave to conclude this paper, already I fear too long, with the narration of a well marked case which has recently fallen under my own observation, and which I attended for Mr. Newby of Poland Street, who was at that time confined in consequence of a domestic calamity. A robust child of seventeen months old, was attacked with cough, cold, and fever, which were quickly succeeded with symptoms of croup. The friends of the child, not aware of the insidious nature of the disease, deferred applying for advice till after a lapse of two days, when I found it labouring under pyrexial symptoms, quickened and laborious breathing with a highly flushed countenance; but what immediately struck me was the peculiar shrill noise accompanying each inspiration, and the rough stridulous cough which so unequivocally characterize the cynanche trachealis. The pulse was frequent and full; bowels regular. Five grains of calomel were ordered to be given immediately in a little thick syrup, and two grains every two hours after till some obvious alteration should take place, and in addition to these four leeches to be applied to the sternum. In the evening I found my little patient evidently relieved; eleven grains of calomel had been given with very little effect on the bowels; respiration was more moderate and natural; cough less urgent; the force and frequency of arterial action much diminished, and the face not so florid. The calomel was ordered to be continued in doses of two grains every two hours as before, unless excessive purging should be induced, and a blister to be applied to the breast. Next morning I found so great an abatement of all the symptoms, as to be able to pronounce the child out of immediate danger; twelve grains more of calomel had been given, and had produced several loose stools, some of which were of a dark green colour, and contained a number of films like threads of coagulated lymph; the inordinate action of the heart and lungs had now subsided, and nothing but a croupy cough remained. On inquiring if any portions of a membrane had been coughed up, the mother of the child informed

me she had twice observed its mouth covered with a large white skin after a fit of coughing, but before she could succeed in her attempts to extricate it with a spoon handle the child had swallowed it. With a view to detach any portions of the membrane that might be left, I advised a smart emetic, but notwithstanding nearly one scruple of ipecac. and four grains of tartarized antimony were given at short intervals, little vomiting was produced, and that without any appearance of skins. From this time the remains of the complaint made a gradual retrocession, and the child recovered.

I am, &c.
CHARLES N. WAWN.

No. 48, Poland Street,
Feb. 10, 1804.

Prof. Tilesius's Remarks on Herpetic Eruptions, Part I. *Translated from the Paradoxien of* Dr. F. H. Martens, *Leipsig*, 1802; *by* T. M. Winterbottom, M.D. *South Shields; and abridged by* Thos. Bateman, M.D. *Physician to the Public Dispensary in Carey Street.*

[With an Engraving.]

After having collected the histories of cutaneous diseases, which occurred in his practice during a period of several years, Dr. Tilesius observed that cases of the *herpetic* eruptions were the most numerous; and he was induced to publish his observations in consequence of the confusion which prevails among writers on this subject. He accords with Dr. Willan in the remark, that this confusion has arisen from considering the same disease as different in its nature, and designing it by different names, when its appearance was merely modified by, 1. Difference of situation. 2. By the degrees of violence; or, 3. By the period of its duration; and he adduces several examples to corroborate this remark. The two important sections which follow, treat of the generic character of herpes, and the division and description of the species.

Generic Character of Herpes.

The true *herpetic* eruption has hitherto, even by late writers, had various generic names assigned to it, and has been arranged under all the following genera, viz. Lichen, (Willan, Plenck.) Impetigo, (Vogel, Lommius, Plenck.) Psora, (Lommius.) Strophulus, (Willan, Strophulus, Volaticus.)

(Ł)aticus. And even under Scabies, (Ludwig, and others, who merely looked to the cure.) To the causes which have given occasion to this confusion, so well pointed out by Willan, I shall add, that the basis, or broad, inflamed area of this eruption, has never been examined with the microscope; otherwise it would have been seen; that the small pimpled herpes presents to the armed eye the same form as the miliary eruption and pemphigus do to the naked eye; and that the general character of herpes is a circular, oval, or even irregular, itchy, inflamed, and somewhat elevated basis, upon which the congregated, and often confluent pimples (papulæ gregales) spring up. Sauvages (Cl. i. Ord. 2) is tolerably accurate. Some of the moist kinds of herpes acquire small, yellow crusts, produced by the saline, glutinous fluid oozing from the pimples when burst; these project like solitary rough points from the area, and produce the characteristic rough surface. It was probably only these incrusted points which Sauvages has termed "crustaceas"; for, except these, no crusts appear upon herpetic eruptions; only branny scales, in which the area, or inflamed basis, commonly desquamates. Sometimes the basis appears wrinkled, when the epidermis has been so much stretched and elevated during the inflammatory period, that subsequently, when it collapses, it lies in long folds, until it be sufficiently dry to exfoliate. Moreover, the acute sense of burning and itching, which continues even after the period of inflammation, is characteristic of this genus. Sauvages says very justly, "Papulæ pejores, corrosivæ, congestæ, aream circularem constituunt, acutè pungentem, valdè pruriginosam." Finally, all herpetic eruptions terminate in a regular desquamation.

It must be observed, that the desquammation of the cuticle is not affected in all diseases in precisely the same manner. It is sometimes separated in the form of scales, sometimes of bran, sometimes of meal or farina, and in some cases in that of foliola or flakes; always in a determinate form, according to the nature of the disease. Hence the importance of microscopical observations, in order to ascertain with accuracy the nature of the disease. Herpes and scabies agree in this, that their pimples break, and fall off in *branny* frustula epidermidis. The *area* of herpes however distinguishes it from itch, in which the pustules are solitary, and spread over every part.

Do pimples or papulæ, which Plenck, Sauvages, and other good Nosologists include in the generic character of herpes, and even consider as a principal appearance, exist in

in all herpetic eruptions? This is a question which Sennertus and Cullen (Phlyctenæ vel ulcuscula plurima, gregalia, serpentia, dysepuleta,) might have answered, if they had perused their works. Agreeably to my own observations, I must answer it in the negative. For I have frequently seen a real herpes, without papulæ, that is, a local eruption of small congregated vesicles (phlyctenæ,) placed upon a somewhat elevated, broad, inflamed basis. This eruption is figured in the plate, (fig. 1) and described under the name of bladder herpes (blasenflechte). It is much larger than the miliary herpes (hirseflechte) which has been described by Sennertus as vesicular, "Constat ex hydatidibus, seu vesiculis, granum milii æquantibus;" and hence its vesicles can be less easily mistaken than those of the miliaria, or considered as papulæ or pimples. Nosologists, however, have given very different definitions of papulæ. Sauvages has classed them with pustulæ, phlyctenæ, and vari, among the rashes, (efflorescentiæ). Plenck says, "papulæ are small hard tumours, which either disperse, or discharge out of their apices a fluid, and then scale away. They differ from pustules in not suppurating, and from vesicles in containing no watery fluid. They appear to be seated in the glands of the skin." Willan understands by papulæ, a very small and pointed elevation of the epidermis, with an inflamed basis, which contains no fluid, and does not suppurate, whose continuance is uncertain, and which mostly terminates by a branny desquamation. All these definitions, however, are ambiguous, because they rest upon no anatomico-pathological examination.

The reason why phlyctis or vesicula is transparent, and on the contrary papula is hard and opake, is to be deduced from the organs by which these eruptions are formed. The first is merely a separation or elevation of the cuticle from the rete mucosum, and is occasioned by an effusion and collection of acrid lymph. In the latter, the acrid lymph, stagnating in the skin and adipose membrane, imitates the cutaneous glands, and forces them, covered with the rete mucosum, upwards to the surface. Consequently a phlyctis is a lymphatic elevation of the transparent epidermis alone; but a pimple (papula) is a slighter elevation of the epidermis, together with the rete mucosum. To be convinced of the justness of this explanation it is only necessary to open a phlyctis, in herpes vesiculosus, erysipelas, or zona, and compare it by means of a microscope, or even by the feel of the fingers, with a papula laid open in a patient affected with

with itch, with lichen, or who has gruta, vari, or fonthi on the face.

Both of these kinds of eruption appear among the examples of herpes, but do not constitute its character. Independently of them, the flat, elevated, and broad area beforementioned, upon which the papulæ or vesiculæ of herpes are collected, suffice to characterize the genus herpes; for there is no other genus among the various eruptions in which this peculiar appearance is observable. Hence herpes is most easily distinguished from all other eruptions.

Herpes invariably retains its characteristic distinction, it seldom mixes or is complicated with other eruptions, and never changes into other genera. "Ex acri veneno degenerante herpeticum oriri, non minus, quam pomorum e semine prunos expectare, absurdum videtur." Frank de Cur. Hom. Morbis.) What Wichman says of eruptive poisons in general, is particularly applicable to herpes. "I have no idea of the degeneration of an exanthematous poison or virus; it may alter in some respects, assume a different form, and produce different effects, according as it attacks this or that part of the body; but it can no more degenerate or change into another kind, than a vegetable. It always continues to be a modification of the same virus, and requires only a little diagnostic skill to discover it. Syphilis affords a particular illustration; if it be not totally eradicated, it may perhaps be deposited upon a glandular part, produce hardness and congestion there, but not scrophula; and it will yield to no other than to its specific remedy. Such is the case with herpes, itch, &c. which change into each other as little as measles change into small-pox, or as the cow-pock changes into variola, and vice versâ. But one virus may be complicated with another kind, and so on."

Whether the complication of herpes with other kinds of virus be a rare occurrence or not, we are certain that it has been combined with erysipelas, and this *mixed* eruption has been called by Poupart, dartre erysipelateuse. This author distinguishes it from the other species, by its larger and more extensive inflamed base (area); and by the pimples or rather vesicles (bläschen), from which there oozes a thick, glutinous, saline, and almost purulent fluid, and which appear at first close and congregated in the midst of the area, and accompanied with great heat and violent itching.

A similar combination takes place in the venereal herpes, which generally appears on the upper and inner parts of the

the thigh, the scrotum, and inguinal regions; in women, on the pudenda, mons veneris, papilla of the breasts. It is distinguished by very small, dry, reddish-yellow papula, which spring up upon a bluish red, inflamed base, (area) and are sometimes circumscribed by a sharp edge. Those who are affected with this eruption, have commonly been liable to herpes, before they were attacked by lues; and though the herpes has been somewhat changed by the accession of the syphilitic virus, it cannot be cured without mercury. Herpetic patients are no more secure from the effects of venereal virus, than patients affected with the itch. But it is remarkable, that herpes, in every possible mixture of lues, &c.) still retains its generic character, the area, and branny desquamation.

Many good practitioners seem to know this distinctive character; although it is often lost sight of, by making an unnecessary distinction between lichen and herpes. Wichman seems to have distinguished the herpetic pimple very well from other isolated pimples, by contrasting the crusta lactea and serpiginosa; but though he seems to comprehend it, he has not given the characteristic of herpes. He considers the more extensive basis of the inflammation, (or area,) the more violent itching, and the more intense redness, as also the congregated papulæ miliares of the one, opposed to the isolated ulcers, and pale red margins of the other, as affording a generic distinction. But it is the red spot, basis, or area, which distinguishes herpes from all other eruptions. Its progress is in this manner: Upon this red spot, which rises more or less above the surface, a number of pimples or vesicles appear closely crouded together, and which, upon the slightest touch on their summits, feel as if pricked with needles; at this time the itchy irritation has reached its acmè, and the first stage is completed. From the last or desquamating stage, in which the epidermis falls off, as far as the area reaches, in mealy or branny scales, the second characteristic of herpes is deduced.

Division and Description of the Species.

I. Division. Vesicular.

By vesicular herpes I understand those kinds, in which the *area* is somewhat redder, less elevated, and of greater circumference; and which, in the first stage, do not break out in pimples, or papulæ, but in vesicles, phlyctenæ. From the violent heat and itching, the vesicles are commonly broken by scratching on their first appearance; and then an-

an acrid lymph oozes out from their summits, which in the second stage forms a small yellow crust; so that the whole surface of the area becomes rough as a grater, or like the cutis anserina. As soon as the vesicles have poured out their contents, the cuticle forms rugæ in the whole extent of the area, and falls off in branny scales, which are larger than those which occur in the *papular* species.

I have hitherto had an opportunity of observing only three species of *vesicular* herpes. 1. The large transparent bladder-herpes, glass or porcelain-herpes, (herpes phlyctænoides. 2. The erysipelatous or confluent herpes, (h. erysipelatosus.) And 3. The miliary herpes, (h. miliaris.) These three kinds are sufficiently distinguished from each other by their external appearance, as well as by their intrinsic character, causes, and method of cure; but agree in the characteristics which have been pointed out. Area purpureo-rubescens, vesiculis corymbosis efflorescens. Willan, from his classing the different species of herpes under his Fourth Order (Bulla Vesicula) seems to know no other kind but the vesicular; but in his descriptions we here and there find an instance of herpes under lichen; and in his plates, under strophulus.

A. *Herpes Phlyctænoides,* Porcelaine Herpes. (Fig. 1.) I have twice had an opportunity of observing this eruption in young men, who had changed their residence and mode of life. Once I observed it in a girl, where it appeared as a critical excretion of a suppressed skin disease, or as a metastical eruption. The last time it appeared in rather smaller vesicles, which were regularly circular, or hemispherical. The patient was sixteen years of age, and had been affected with itch about half a year before this eruption appeared. The itch was suppressed by frictions with mercurial ointment, *which had occasioned* a tertian fever, and a retention of the menses. The patient was carried to a public hospital, where she had taken remedies for three weeks when I saw her; these consisted at first of evacuants and antimonials, and, after the fever abated, of gentle emmenagogues and the warm bath. After she had used the bath about ten times, this herpetic eruption appeared, after a dull pain in the body, on the right lumbar region; and at the same time the menses returned. All internal uneasiness ceased, and the appetite became good. The herpes on the second day extended upwards as far as the sixth rib on the right side, and under the right breast.

The

The areas were in general not smaller than a sixpence, and not larger than half-a-crown, very much inflamed and itching: none of them more distant from each other than a finger's breadth, and it was not more than half a day before vesicles were formed. The vesicles stood close to each other; most of them were of the size of a lentil, and reddish; at top white, shining, and pointed: few of them equalled a small pea in size. On the following day the vesicles had become glassy, pearl-coloured, and transparent; on the third day, those which had not been scratched nor burst, became wrinkled and collapsed; from some of them there oozed a viscid lymph, which formed a yellow crusty top. The epidermis of the area, which, in the inflammatory period, was elevated above the surrounding skin, became wrinkled about the fifth day, turned pale, and on the eighth fell off in branny scales, and sometimes even in large leaves. The area continued red, and appeared as if covered with white meal, and was circumscribed with a sharp margin: it itched five or six days longer, whilst the redness continued. When the lowest patch, near the mons veneris, was healed, the superior ones beneath the breast were in a state of inflammation. No application was made to the eruption except a little fresh expressed oil, which the patient was allowed to apply, to allay the itching.

The herpes of the two young men was much milder; but filled with larger and more irregular vesicles. They were both students from the country. It is supposed, and not unjustly, that most foreigners who drink the water here in Leipsic, get the itch or some other eruption; it happened to me, and to most of my countrymen: but perhaps the sedentary habits, mode of life, &c. of students, may have contributed towards it.

The first of these young men was a Swiss, aged 24, of a melancholico-phlegmatic temperament and a lax fibre. He had previously been accustomed to air, exercise, and wine daily; here he drank water, ate a quantity of truffles, cheese, and smoked flesh; was sedentery and studious. The eruption appeared near the lower part of the spine, and consisted of two inflamed areas of a purple red colour, between three and four inches long, and from one to two inches broad. These were thickly covered with large and small irregularly formed vesicles, which itched and burned so violently, that the patient could not bear his clothes to touch them. The vesicles were from the size of a millet seed to that of a barley corn or small bean; they

 were

are often curved obtusely triangular, and confluent; but had the glassy appearance, and resembled in their origin, progress, and other appearances, those of the girl. My patient was ordered to change his mode of living, to use gentle exercise in the open air, by which means the complaint was removed in three weeks.

The second person who suffered from this complaint was a law-student from Mühlhausen, a very industrious and regular young man of twenty years of age. He had had symptoms of dyspepsia; sat close in his study; but, except drinking water constantly, had committed no errors in diet. I ordered him the soluble tartar and fumaria, alternated with gentle laxatives, regular exercise, and free air. After a short journey on foot all his dyspeptic complaints disappeared. But this vesicular herpes arose in the left hypochondriac region: in eight days it had scarcely increased above three inches, and disappeared without either internal or external remedies: The Fig. I. was drawn from this eruption, which exactly agreed in every point with the two former. The specific distinction of this from other herpetic species, is its large transparent vesicles, with a true glassy lustre (glas-glanz), and resembling porcelain knobs. It ranks among the mild kinds of herpes. Retz, who refers all skin diseases to a plethora biliosa, has also given this a place.

B. *Herpes Erysipelatosus* — Fr. Dartre Erysipelateuse. H. pustulosus of Plenck. Sauvages. Spec. 4. (See Fig. II.) This species is distinguished from the former by its broader area diffused over a larger surface, and consisting of a cinnabar-coloured, burning, erysipelatous inflammation; which disappears gradually; is not circumscribed by a defined margin, and extends far beyond the few vesicles which are commonly placed in the middle of the area. The vesicles are preceded two or three days by the area, in the form of an itching, hot, erysipelatous patch. The largest vesicles occupy the central part, and commonly contain a yellowish acrid lymph; the smaller ones stand nearer the margin, and sometimes contain a purulent matter, and have a yellowish red point on their summits. The vesicles are smaller than in the former species, less elevated, and less transparent; have more of a *fatty* appearance, are less regular, and not so much crowded together. The smaller marginal vesicles form small crusts upon the apices, which makes the area in the second stage rough. Eschars or large crusts, as some pretend, I have never observed;

served; the larger central vesicles form no crusts on the tops, but become pale and fall into wrinkles until the elevated cuticle dries and falls off in small patches. This species of herpes is of the moist kind, slower and more obstinate in its progress than the former, but by no means so malignant as to have it classed with Sauvages (Spec. 4.) among the spreading kind (H. estromenos of Galen. H. exedens vel depascens of Turner. Spec. 4). It is distinguished from the erysipelas bullosum by its area, which the last wants, and by the congregated small bullæ, which in the erysipelas are larger and more distinct. It is also much more itchy than the pure erysipelas, which never terminates by a branny desquamation. Fever never accompanies it, as sometimes happens in the erysip. bullosum. It is commonly seated upon the exposed parts of the breast and arms, often also upon the neck. It is peculiar to females.

In private practice this eruption has occurred to me only once, when I treated it merely internally. It was of the benign kind, and radically cured in 12 days. The patient was a young woman, who had been frequently troubled with erysipelas in the face, and since her childhood had been subject to lichenous eruptions on her neck and chin. She had now been much heated by washing, and, whilst perspiring, suddenly exposed herself to a piercing north wind in January; this eruption immediately appeared in her neck; in three days it proceeded as far as her right ear, and formed six distinct red herpetic spots, which touched each other, and threw out the above described bullæ in their centres. Two of these patches were extremely painful, and by the constant oozing of a sharp corrosive lymph, ~~became~~ excoriated and bloody. One of these is represented at B. (See plate, fig. 2,)

I have seen this species three times in hospitals, where it was always more tedious and obstinate. Upon the foot of a woman thirty-two years of age, it had continued three months; the patient had been treated, as I was informed, with fumitory, sarsaparilla, dulcamara, cicuta, antimony, and corrosive sublimate. In one case, the internal and external use of vitriolic acid was said to have been useful. My patient took every morning a gentle aperient, after which she drank an infusion of the flowers of verbascum. At night, when warm in bed, she took about 60 drops of liver of sulphur in a cup of a gentle diaphoretic infusion. In order to sooth the burning itching pain, she was allowed to apply externally only the ungt. de uvis.

C. *Herpes*

C. *Herpes Miliaris*, Sennert. lib. 5. c. 17.—Dartre miliare, Poupart, vid. Plenck, spec. 5. Turner, Sauvages. (Plate, fig. 3.) This is the most malignant and obstinate of all the vesicular species: it is not so rare as the two former species, and attacks men, women, and children; it affects the arms and legs, neck, head, breast, and abdomen. It appears at first in an insignificant form, viz. in small vesicles like millet seeds, of a pale red colour, and pointed, with very pale apices (A. Fig. III). These are situated upon an elevated area, moderately inflamed when compared with the erysipelatous herpes, but itching violently. In the second stage the vesicles become more crowded, and the burning and itching of the area increase, (B). The pimples or vesicles soon burst, or are broken by scratching; a saline glutinous fluid oozes out, which increases the redness and heat; the cuticle is eroded by it, and the herpes spreads. When the inflammation of the area is violent, the vesicles are sometimes filled with a purulent matter, which has a yellow appearance seen through the transparent tips of the vesicles; but I have also seen them watery, and quite empty, hard and almost papulous. I have never observed fever in this complaint. When it has existed for a length of time, the inflamed surfaces touch each other, and become confluent, so that a single area is no longer to be distinguished. The whole surface or basis is red, becomes eroded in the middle, and excoriated by the constant oozing out of an acrid lymph; it is also full of bloody chinks or furrows, surrounded by a fresh margin of miliary eruptions. Of this I have given a representation in Fig. III. C.

No kind of herpes in general bears to be covered without uneasiness; the dry kinds are irritated by the friction of the shirt and clothes, and the itching is thus increased. Heat also produces the same effect. The moist kinds are likewise troublesome, by sticking to the linen as soon as they burst, which being again torn away on using motion, the cutis is left naked. This is especially the case with the H. miliaris, in which the rete mucosum is thus laid bare, and the small vessels of the skin, being torn, pour out blood. To prevent this, the eruption should be anointed with simple ointment, which will also assuage the pungent itching. Some physicians imagine that this species is communicated by infection, e. g. by means of linen, barber's razors, towels, &c. I cannot speak from experience on this point. It is certain, however, that this kind of herpes is for the most part accompanied by evident

marks

marks of depraved fluids, which gives the physician much trouble; for when he supposes the eruption removed, it returns again, and fresh vesicles often spring up on an area which has already had two successive crops. This is particularly the case in scrophulous and scorbutic subjects. This kind of herpes does not appear to be hereditary: it arises frequently after a suppression of the hæmorrhoidal or menstrual discharges. In general it shews a striking connection with the periodical discharge in women; e. g. it appears only at the beginning of this period, or disappears during that time, or on its cessation from age; or it vanishes during the period of pregnancy, and re-appears after delivery. Dirty people, and natives of warm countries who eat much oil and fish, are peculiarly liable to this eruption. It occurs particularly in moist and marshy countries, in spring and autumn. Many internal diseases excite it; and many others arise in consequence of its being suppressed by cold, frictions with mercurial or saturnine ointment, &c.

The remedies to be employed for the cure of this eruption must be different, according to the causes which have produced it. If it be occasioned by a cachectic state of the fluids, it must be remedied by a change in the mode of living, and by medicines which purify the blood. If it arise from metastasis, it must be healed with liver of sulphur, sulph. aurat. antimony, warm bathing, and evacuants. If it be connected with suppression of the hæmorrhoids, menses, &c. these discharges must first be restored. Some consider a metastasis of gouty matter as a cause of herpes: others, that it is a peculiar herpetic acrimony, for which corros. sublimate is the antidote. In hospitals I have once seen this eruption treated according to Smyth's plan, internally and externally with cantharides: another time according to Thilenius, internally with dulcamara, rad. lapathi, and fumaria, and externally with elm bark. Constantini has speedily cured it with a salve composed of litharge, lap. calamin. ol. oliv. and acetum, with which the area was covered twice a day, at the same time the perspiration was kept up by a warm infusion of elder flowers; others have had success with belladonna and rhubarb. The Portuguese cure it by the external use of lemon juice, and the leaves and flower-cups of the cistus ladaniferus; and internally with a powder of the burnt ossa sepiæ, calomel, and crude antimony, whilst at the same time caldas, or sulphur water, or aqua de S. Miguel is drank.*

* The *papulous* herpes, together with an account of the general mode of cure, will appear in a future number of the Paradoxien.

not larger than a walnut and often as small as a hazel nut.

According to Sabatier, both Franco and Paré practised the method of operating in hernia without opening the sac. Mr. Petit practised it before the year 1720, and in his posthumous work has replied to the objections that had been urged against it. The following quotation will show in what cases he deemed this method of operating inadmissible, and that he was well acquainted with the advantages resulting from it in those cases, wherein he had recommended it. "Mon sentiment est donc, qu' excepté les hernies gangréneuses, celles qui sont maronnées & quelques-unes de celles, dans lesquelles l'intestin contient des corps étrangers, toutes les autres peuvent etre traitées ainsi; il y en a même, qu'on ne doit point traiter autrement."

"Qu'on se demande à soi-même quelle utilité il y a d'ouvrir le sac? Je n'en connois aucune, si ce n'est de découvrir l'intestin & l'epiploon, pour remédier à leurs altérations, supposé qu'il y en ait, de le détacher de lui-même & de l'épiploon dans les hernies maronnées, & de pouvoir toucher immédiatement l'intestin, pour faire rentrer les matières fécales endurcies & même les corps étrangers, s'il y en étoit. Or ces trois cas sont ceux, que j' excepte: dans tous les autres, qui sont en bien plus grande nombre, pourquoi ouvrir le sac? Rien ne nous indique de le faire; il est même très avantageux d'eviter cette opération, *parceque l'on n'expose point les parties à l'air; on ne court point risque de les blesser en ouvrant le sac*, & de plus je ferai voir ailleurs, que pour les suites, il est bien plus avantageux, que le sac n'ait souffert aucune solution de continuité. De tout cela, je tire cette consequence, qu'il vaut mieux débrider l'anneau par le dehors, que par le dedans du sac." *Traité des Maladies Chirurgicales*, t. ii. p. 373.

This mode of performing the operation is particularly recommended by Dr. Monro, in his "Description of all the Bursæ Mucosæ," p. 43, &c. who has adopted the opinion and reasoning of Mr. Petit, and confirmed the propriety of these by the relation of different cases. In a Note to p. 57, the Doctor has the following observation. "We will readily perceive, that Mr. Petit did not perceive the chief advantages of the operation he proposed; I mean, that the danger in the common method of operating arises chiefly from the exposure of the bowels to the air; and as this material fact has been little better understood by various authors who have lately written on the

subject, that method has been rejected by them on as slight foundation as that on which it was proposed by Mr. Petit." But it appears from the above quotation, that Mr. Petit has particularly noticed the advantage of not exposing the parts to the air.

The incarcerated crural hernia is a frequent and dangerous complaint. The danger of the disease, as well as the difficulty of the operation, which is required for its removal, are confessedly increasing every hour. It therefore is the duty of the surgeon, when called in at the commencement of the complaint, to make an immediate and fair trial of the remedies that are most powerful in taking off the strangulation; and where these do not prove successful, to propose the operation without delay. When an operation can be considered by a surgeon, and recommended to a patient, as not attended with much danger, pain, or difficulty, and as affording a very good chance of recovery from a disease extremely dangerous in itself, it will be more likely to be proposed by the one and submitted to by the other at a sufficiently early period to be attended with success. In this point of view the operation in question may, I conceive, very properly be regarded, and may, if generally adopted, be the means of preserving many valuable lives that would otherwise be lost.

II. *Where the hernia was perfectly reducible before the incarceration, but from the long continuance of this and especially from the violence of the symptoms, there is great reason to fear that the prolapsed parts are either gangrenous or tending strongly to gangrene.*

Under these circumstances it would be evidently improper to attempt the reduction of the bowel or bowels, without opening the sac, since these, if mortified, must separate, and may thereby occasion so much mischief in the cavity of the abdomen as to prove fatal. It is therefore necessary to open the sac, and examine the state of its contents, which should be done before the crural ring is divided.

With this view, a small opening is to be made into the sac, in one of the ways mentioned above; and it is in general better to make this near the bottom of the sac. The opening is to be dilated by a probe-pointed bistouri either introduced upon a grooved director or guided by the fingers up to the anterior margin of the crural arch.

A. If the prolapsed viscus, or viscera, though inflamed or discoloured should neither adhere to the sac, nor be affected

fected with gangrene, there can be no doubt with respect to the propriety of returning it. We have been advised by some writers to pull down an additional portion of bowel into the sac, before we cut the crural arch, as the division of the arch may thus be rendered unnecessary. This attempt, however, should be made with great care, since any material force applied to the bowels, would be productive of more danger than the division of the arch, and would often fail of success; and I consider it as a better general rule, to proceed to the division of the crural arch immediately after we have determined upon reducing the contents of the sac.

B. Should the bowel or bowels adhere to the sac, and not be gangrenous, in all probability the adhesion will be of the spongy kind, formed by a layer of coagulable lymph, either wholly inorganic or but imperfectly organized, and may be detached without the use of the knife, by the means recommended above. In this case, therefore, we may separate the prolapsed parts from the sac, and then reduce them.

C. If the hernia be an Epiplocele, and the displaced portion of omentum be in a gangrenous state, this is to be carefully unfolded, and removed by a pair of scissars. Should any vessel or vessels bleed, these are to be separately secured by ligatures, which should be left of a sufficient length to hang out of the wound, that they may be taken away after they have separated. No ligature, as was formerly practised, should be tied tight round the whole of the protruded omentum.—If the omentum be in a dubious state, or if the limits betwixt the gangrenous and living parts be not well marked, it may be advisable to leave it in the sac.

D. If the hernia be of the intestinal kind, and the prolapsed portion should be merely an appendix, as the appendicula vermiformis, or a preternatural elongation, forming a cul de sac, and gangrenous, this is to be removed by a pair of scissars. The upper portion, if its diameter be considerable, and especially if fæces be discharged from it, should be stitched, before it is returned, in order to prevent the inconvenience and danger arising from the discharge of fæces from the wound, or into the abdomen. The ligatures here also should be left of sufficient length to be withdrawn after their separation.

E. When the hernia is an Enterocele, and the prolapsed portion, constituting a part of the regular alimentary canal,

is in a gangrenous state, we must proceed differently, according to the extent of the gangrene.

If the gangrene occupy the cæcum, or only a portion of the parietes of the intestine, the posterior or mesenteric part being situated above the stricture, it will be necessary, after opening the sac and dividing the crural arch, to apply the proper dressings; in doing which we are to take care that the wounds of the sac and integuments do not heal by the first intention; that the fæces, discharged through the opening in the intestine, are frequently removed; and that the strength of the patient is supported by nutritious clysters, if a great part of the aliment, taken into the stomach, pass through the wound. In several cases of this kind the aperture in the intestine has gradually diminished and at length entirely healed, and the discharge from the wound has gradually diminished till at length the whole of the fæces have passed by the anus. In other cases, a portion of the fæces continue to be discharged at the groin, the sore remaining fistulous: or the whole of the fæces pass this way, and then the orifice is to be regarded as an artificial anus, and is to be prevented from closing by the introduction of a tent. In instances of this kind it is desirable to know, whether any part of the food taken by the mouth passes through the whole tract of the intestines, and for this purpose currants will be found a very convenient test. These being of small size, and indigestible, will be passed per annus, if not wholly discharged from the opening occasioned by the hernia. By some writers we are advised not to cut the crural arch in these cases, for fear of destroying the adhesion by which the intestine is attached to the parts about the ring: But the mere division of the arch would not, I apprehend, in any instance separate the intestine when it does adhere; and if it should not adhere, the division of the arch would be necessary to enable us to pass a needle and ligature through the mesentery, with the view of fixing the intestine in the wound.

If the whole of the parietes of the prolapsed intestine be affected with gangrene, we should divide the crural arch, and then endeavor to draw down a portion of the sound intestine, connected with each end of the gangrenous part, into the sac. If this should be impracticable, in consequence of adhesions at or above the neck of the sac, the operator can do no more than apply the dressings in such a manner as to admit of the fæces being discharged by the wound. It is scarcely to be expected, that under these circumstances,

circumstances, the divided extremities of the intestine can unite in such a manner as to restore the continuity of the alimentary canal. In general, if the life of the patient be preserved, it must be by submitting to the inconvenience of an artificial anus.

When a portion of sound intestine, connected with each extremity of the part that is become gangrenous, is pushed down, or can be pulled down, after the crural arch has been cut through, a choice of two modes of proceeding is left to the operator. He may either content himself with establishing an artificial anus, or he may endeavour to unite the sound ends of the intestine, after removing the mortified portion.

To form an artificial anus, it is necessary to secure both the divided extremities in the wound by passing a ligature through the mesentery, and fastening this to the thigh by a piece of adhesive plaster; because we are not able to determine with certainty which end is connected with the upper part of the alimentary canal. After this has been ascertained, by administering oil or currants, it will not be requisite to detain the extremity of the inferior portion of the intestinal canal in the wound any longer. It may therefore be returned into the abdomen, after clearing it by the injection of some warm water, or after stitching up the aperture, if this should appear necessary from any discharge that may take place from it. The discharge of the fæces from the remaining end of the intestine, is then to be provided for by proper dressings, &c.

An artificial anus, with every advantage to be derived from an appropriate apparatus and bandage, proves a constant source of distress from its dirtiness; it is also liable to become extremely painful and even dangerous, in consequence of an inversion and protrusion of the intestine, resembling a common prolapsus ani; and in some cases an anus of this kind proves a cause of dangerous and fatal debility, the food passing off by it, before the chyle has been absorbed in sufficient quantity to answer the purposes of nutrition. This last inconvenience is unavoidable, where the portion of intestinal canal betwixt the stomach and the aperture, constituting the anus, is of short extent. To avoid this source of inconvenience and danger, it has been proposed to stitch the sound extremities of intestine together, after the removal of the gangrenous portion, and in a few instances this has been put in practice with success. With this view the extremity of the superior portion of intestine has been introduced into the extremity of the

 inferior

inferior portion, and these have been sewed together without introducing any extraneous substance into the intestine. In other cases, a piece of the trachea of some animal, or a hollow cylinder formed of a piece of card or thin pasteboard, or a piece of a tallow candle of a proper thickness, have been introduced into both extremities of the intestine, before the needle and ligature have been employed to sew them together. An obvious advantage is to be derived from interposing some substance of this kind, before we attempt to stitch the intestine, viz. that we run no risk of sewing the opposite sides of the intestine together, when we only wish to unite the two ends.

F. Another case has occurred, wherein the prolapsed portion of intestine, though not gangrenous, must necessarily be cut off, and treated in one of the ways just described, in order to give the patient a chance for life: namely, where two points of intestine have been so long and so strongly compressed, that an adhesion of different parts of the internal coat has taken place and obliterated the canal. The intestine contained in a herniary sac has frequently been observed to be much contracted in the points where it has sustained the pressure of the ring, but I should suppose it has rarely been rendered impervious from this cause, though it must be regarded as a possible case, and consequently as deserving the attention of the operator. The pervious, or impervious state of the intestine in these points, may upon some occasions be ascertained by pressing, or attempting to press, the contents of the intermediate portion of the intestine through them, or by pulling the parietes gently asunder. Where the canal of the intestine is pervious, we need not hesitate about the reduction, as we may expect the contracted points will gradually recover their natural diameters.

G. If both a portion of omentum and intestine should be found affected by gangrene on opening the herniary sac, the operation is to be conducted according to the directions given above for the management of the cases, wherein these states of the omentum and intestine occur singly.

III. *Where the contents of the sac were irreducible for a considerable time previously to the incarceration, and there is every reason to believe them to be neither gangrenous nor on the point of becoming so.*

A hernia may be rendered irreducible independently of incarceration, from the bulk or change of form of the displaced

displaced parts, or from the adhesion of these to each other and to the sac.

It rarely happens, I believe, that a crural hernia becomes irreducible merely from the bulk or change of form of the contents of the sac. Where a crural hernia is irreducible, before incarceration takes place, I should be induced to consider this as arising from adhesions, rather than from the bulk, or change of form of the bowels. Adhesions may affect the whole or only a portion of the contents of the sac, and hence the hernia may be wholly irreducible or partially reducible; and adhesions, when partial, may affect the neck of the sac only, or some part at a distance from the neck. Adhesions also differ in their nature, as well as in their extent and situation. Three kinds of adhesion have been described, viz.

1. The *spongy*, in which the parts are slightly glued together by a layer of coagulable lymph, and can easily be separated by the finger, or other blunt body pushed betwixt the adhering parts.

2dly. The *fibrous*, in which slender cords or filaments, of a softer or harder consistence, arise from one part of the contents or sac, and are attached to another.

3dly. The *fleshy* or *tendinous*, in which the parts are united together in such a manner, that they form an almost homogeneous mass, the constituent parts being scarcely, if at all, distinguishable from each other. The *spongy* adhesions are to be expected in herniæ, where the parts have only begun to adhere, after the incarcaration has taken place. The *fibrous* and *fleshy* are to be expected, where the irreducible state has preceded the strangulation, and especially the latter, which is the worst kind of adhesion.

From a perusal of the writings of some celebrated surgeons, it would appear to be no difficult matter to separate any adhesions that may be met with betwixt a herniary sac and its contents. That the spongy kind of adhesions may be easily broke thro', I know from experience; and I also know from experience, as well as reading, how extremely embarrassing the fleshy kind of adhesions prove, and that it is impossible in some cases to separate these by dissection, without wounding either the prolapsed bowels or contiguous blood vessels.

A case of incarcerated Bubonocele, in which the hernia was of large size, had existed more than *sixty* years, and during a considerable part of the time had been in an irreducible state, occurred to Dr. Lancaster and myself. After trying the usual remedies, the operation was proposed

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and submitted to. On cutting the sac, which was very firm, thick and opake, we found the contents every where adhering to it, and the whole compacted into a mass, with scarcely any distinction of parts. With great difficulty we dissected the contents from the sac, and by carrying an incision thro' the inguinal ring as high as where the bowels passed out of the abdomen, we succeeded in returning them into the abdomen. No vessel was wounded in the operation, which required tying. Yet there is reason to believe, that the spermatic artery was divided, as the testicle and spermatic cord sloughed, and came away in a few days after the operation. It is remarkable, that though we could not avoid wounding the omentum and intestine in this operation, the old man recovered without any dangerous symptom, and lived several years, following the occupation of a carpenter. This, I believe, was a case of hernia congenita, as we did not meet with a tunica vaginalis testis distinct from the sac, and the contents of the sac seemed to adhere immediately to the testicle.

Since I met with the above case, I have been of opinion, that the best general rule for performing the operation for an incarcerated crural hernia, that was previously irreducible, will be to divide the crural arch, and not meddle with the sac; unless, from its contracted and indurated state, the neck of the sac should prove or be suspected to be the seat of the stricture; we are in this case to cut through the neck of the sac in the manner laid down above, and may then desist from dividing the sac, if there should appear, from the introduction of a probe, to be any considerable adhesion betwixt the sac and its contents; or we may proceed to divide the sac through its whole length, if there be a prospect of reducing its contents without any material risk of injuring either these or the femoral vessels. As the patient may be deprived of the benefit of wearing a truss after the operation, if the prolapsed parts be not replaced, it is particularly desirable that they should be reduced, if this can be accomplished without increasing the danger. The operator should however recollect, that, from the depth which the crural hernia is situated, and its contiguity to the large femoral vessels, the scalpel cannot be used without great danger, to detach any adhesions betwixt the back part of the herniary sac and its contents.

It may not be improper to mention here, that when an irreducible hernia passes into an incarcerated one, the incarceration may affect only the old prolapsed parts, or an ad-

additional portion of bowel, which does not adhere either to the sac or its contents, may be forced down into the sac, and become so far compressed as to occasion the symptoms of incarceration. In the latter instance the taxis may be resorted to with some prospect of success; and as we know no method of distinguishing these two cases, it would appear improper to omit it in any instance.

Whether the sac be opened or not, and whether the bowels be returned, or left in their protruded state, it will be proper to endeavour to heal the wound by the first intention, and therefore to bring the divided integuments into contact, and retain them by sutures and strips of adhesive plaster.

IV. *Where the contents of the sac were irreducible before they became incarcerated, and there is reason to believe these are already gangrenous.*

In this case it is not to be expected that an operation can prove of any use unless the sac be opened; therefore, after dividing the crural arch, a small aperture is to be made into the sac, which is afterwards to be continued through its whole length. If the sac and its gangrenous contents be found adhering strongly together, it will be better to leave these to separate, to keep the lips of the wound asunder, and apply the necessary dressings. If the prolapsed parts adhere but slightly to the sac, these may be cut off as near as possible to the sound.

Under these circumstances, if the prolapsed part be merely omentum or an intestinal appendix, the patient may recover perfectly. If the dead prolapsed part be only a portion of the anterior parietes of the intestine, or part of the cæcum, the recovery may also be complete. But, if a larger portion of intestine, and especially if its whole circumference should be grangrenous, we must expect that the patient, if he should recover, will have a fistula or artificial anus in the situation of the hernia.

V. *Where the contents of the herniary sac have been injured by external violence and incarceration, or symptoms resembling those of incarcerated hernia have taken place in consequence of the violence.*

A. If a person with a reducible crural hernia should receive a severe blow upon it, and should immediately have pain, swelling and tension in the part, together with violent sickness and vomiting, the displaced bowels not admitting of reduction by the taxis and remedies usually employed, the operation for the incarcerated crural hernia will

will be necessary. In this case I should recommend opening the sac, although no symptoms of gangrene were present; because the contents may be so far injured as to render it improper to return them into the abdomen. But if the external injury, though it may have proved the exciting cause of the incarceration, have not been sufficient to immediately affect the texture of the bowels, the opening of the sac may not be necessary.

B. If a patient with an irreducible crural hernia should be exposed to a similar accident, and the same symptoms should immediately arise in consequence of it, and continue notwithstanding the use of the proper internal and external remedies, it would be equally necessary to operate in this case; but I think it would be better to divide the crural arch and leave the sac unopened, if there be reason to believe the contents were not already in a gangrenous state, or merely to divide the neck of the sac when that is suspected to be the seat of the stricture. But if there be reason to suspect the contents of the sac are mortified, this should be opened, since the operation without opening the sac would be of no avail in this case.

Hitherto I have not been consulted in any case of crural hernia, wherein the prolapsed parts had been injured by a severe blow: but I have lately had the care of a patient with a bubonocele, who had suffered from an accident of this kind. These cases prove particularly perplexing from our inability to determine how far the symptoms are occasioned by the injury immediately done to the parts by the contusion, or how far they are the consequence of stricture induced on the parts, owing to their tumefaction.

At some future period I may publish this case, with some further remarks on Hernia, which want of leisure will not allow me to bring forward at present.

Experiments *and* Observations *on* Cinchona, *tending particularly to shew that it does not contain* Gelatine, *by* Andrew Duncan, M.D. F.R.S.E.

Having been long engaged in a series of experiments on the astringent substances employed in medicine, I was particularly interested with " a Memoir on the Febrifuge Principle of Cinchona," lately published. The presence of gelatine in cinchona, was so incompatible with experiments I had

I had formerly made, that I was strongly inclined to believe, that Seguin (than whom no one should be better acquainted with the combinations of tannin and gelatine) had been misled, either from having examined cinchona which had been adulterated, or from some other accidental cause. To satisfy myself I immediately proceeded to the unerring test of experiment, which has convinced me that cinchona does *not* contain gelatine, but some other principle not yet sufficiently examined, which agrees with gelatine, in forming with tannin, a precipitate comparatively insoluble in water. At the same time it is but fair to remark, that my experiments were made with the infusion and tincture of cinchona, containing all the soluble principles of that substance, whereas Seguin's observations are said to be derived from the examination of the isolated febrifuge principle, of which he gives the following characters: "It precipitates the solution of tan, but not the solutions of gelatine and sulphate of iron." On the contrary, my experiments teach me, that the entire infusion and tincture of cinchona, precipitate the solution of tan, and also the solution of gelatine slightly, and the solution of sulphate of iron copiously. But as the two last precipitates may be reasonably ascribed to the action of other principles contained in my infusion and tincture of cinchona, I shall not insist upon them, but proceed to shew that, although cinchona actually does precipitate the solution of tan, yet it does not contain gelatine.

Exp. I. 1. An ounce of infusion of galls was saturated, by adding to it in different portions, an ounce and a half of infusion of cinchona. The mixture was white and turbid, with a loose light precipitate.

2. On filtration the fluid passed almost colourless, and perfectly transparent.

3. The precipitate when dried, weighed five grains. It had a yellow colour, and an opake earthy appearance, was extremely friable, and did not adhere to the filtering paper.

4. The filtred fluid gave no further precipitate with solution of cinchona, but with half an ounce of solution of gelatine, containing six grains of gelatine in each ounce, it produced a copious precipitate, and was saturated.

5. The precipitate, when separated by filtration, and dried also, weighed five grains, but was hard and brittle, adhered strongly to the paper, had a yellow colour, and exactly resembled a resin in appearance.

Exp. II.

Exp. II. 1. An ounce of the same infusion of galls was saturated by an ounce and a half of the same solution of gelatine. Immediately a very copious, whitish, tenacious, and adhesive precipitate was formed.

2. On filtration the fluid passed very slowly; and even after repeated filtration, still retained a slight degree of opaline bluishness.

3. The precipitate when dried, weighed fourteen grains and a half. It had a brownish yellow colour, was transparent, and had a resinous appearance and fracture. It was also hard and brittle, and adhered strongly to the filter. In every particular it resembled the precipitate produced in the former experiment (Exp. I. 1) by gelatine, after the infusion of galls was completely saturated by cinchona.

4. In the filtred liquor (Exp. II. 2) infusion of cinchona produced no change.

Exp. III. To an ounce and a half of the same infusion of cinchona, half an ounce of the solution of gelatine was added. It produced only a slight degree of turbidness, and changed the colour of the infusion from a pale greenish to a reddish yellow colour. When filtred, it passed perfectly transparent, and the bottom of the filter was covered with a red varnish; but it had gained only one grain in weight. In other experiments with larger quantities and stronger infusion of cinchona, the presence of tannin was more strongly indicated.

Exp. IV. Infusion of galls was not affected by rectified spirits of wine, in which isinglass had been long infused.

Exp. V. 1. A tincture of cinchona was prepared by infusing it in the same rectified spirits. After it was filtred some resin was separated by precipitation with water and filtration.

2. With infusion of galls this tincture gave a copious precipitate, exactly resembling that produced by the same reagent and infusion of cinchona. (Exp. I. 3.)

Exp. VI. With tincture of galls the same tincture of cinchona gave no precipitate.

Exp. VII. In the mixed tincture (Exp. VI.) a copious precipitate was produced by diluting it with water.

Exp. VIII. A solution of carbonate of potash produced a copious white flaky precipitate in the solution of gelatine, which was soluble in boiling water, but was not precipitated from the solution by infusion of galls, until some acid was added.

Exp. IX.

EXP. IX. The solution of carbonate of potash changed the colour of the infusion of cinchona to a fine red, without disturbing its transparency.

These facts seem to me sufficient to prove the difference between gelatine, and the new principle in cinchona, which for the sake of convenience, I shall venture for the present to denominate cinchonin.

Gelatine is soluble in water, and the solution is disposed to gelatinize. Six grains of isinglass, dissolved in one ounce of water, form with it at temperatures below 60° Fahrenheit, a jelly of considerable firmness. From its solution in water, gelatine is precipitated by alcohol, and a solution of carbonate of potash. It is precipitated also by tannin, and the precipitates form a hard brown transparent mass.

Cinchonin is soluble in water, but gives it no tendency to gelatinize. From its solution in water, it is not precipitated by a solution of carbonate of potash. It is soluble in alcohol; it combines with tannin. The compound is soluble in alcohol, but forms, when water is added, or used as a menstruum, a friable opaque yellowish precipitate; but cinchonin does not separate even from a watery solution of tanin, all that is precipitable by a solution of gelatine.

OBSERVATIONS ON THE STRUCTURE OF THE TONGUE, *illustrated by Cases, in which a Portion of that Organ has been removed by Ligature.* *By* EVERARD HOME, Esq. F.R.S.

PHYSIOLOGICAL inquiries have ever been considered as deserving attention; and, whenever medical practitioners, in the treatment of diseases, have met with any circumstance, which threw light upon the natural structure or actions of any of the organs of the human body, or those of other animals, their communications have met with a favourable reception.

The following observations derive their real importance from offering a safe and effectual means of removing a portion of the tongue, when that organ has taken on a diseased action, the cure of which is not within the reach of medicine; and as the tongue, like many other glandular structures, is liable to be affected by cancer, it becomes of no small importance that the fact should be generally known

known. In a physiological view, they tend to show, that the internal structure of the tongue is not of that delicate and sensible nature which, from its being the organ of taste, we should be led to imagine.

The tongue is made up of fasciculi of muscular fibres, with an intermediate substance met with in no other part of the body, and a vast number of small glands; it has large nerves passing through it; and the tip possesses great sensibility, fitting it for the purpose of taste.

Whether the sense of taste is confined entirely to the point of the tongue, and the other parts are made up of muscles fitted for giving it motion; or whether the whole tongue is to be considered as the organ, and the soft matter which pervades its substance, and fills the interstices between the fasiculi of muscular fibres, is to be considered as connected with sensation, has not, I believe, been ascertained.

The tongue, throughout its substance, has always been considered by physiologists as a very delicate organ; and it was believed, that any injury committed upon it would not only produce great local irritation, but also affect, in a violent degree, the general system of the body. This was my own opinion till I met with the following case, the circumstances of which induced me to see this organ in a different point of view.

A gentleman, by an accident which it is unnecessary to describe, had his tongue bitten with great violence. The immediate effect of the injury was great local pain; but it was not attended with much swelling of the tongue itself, nor any other symptom, except that the point of the tongue entirely lost its sensibility, which deprived it of the power of taste: whatever substance the patient eat was equally insipid. This alarmed him very much, and induced him to state to me the circumstances of his case, and request my opinion. I examined the tongue a fortnight after the accident; it had the natural appearance, but the tip was completely insensible, and was like a piece of board in his mouth, rendering the act of eating a very unpleasant operation. I saw him three months afterwards, and it was still in nearly the same state.

From this case it appears, that the tongue itself is not particularly irritable; but the nerves passing through its substance to supply the tip, which forms the organ of taste, are very readily deprived of their natural action; this probably arises from their being softer in texture than nerves in general, and, in that respect, resembling those belonging to the other organs of sense. There

There was another circumstance in this case which very particularly struck my attention, viz. that a bruise upon the nerves of the tongue, sufficient to deprive them of the power of communicating sensation, was productive of no inflammation or irritation in the nervous trunk, so as to induce spasms, which too commonly occur from injuries to the nerves belonging to voluntary muscles: I am therefore led to believe, that the nerves supplying an organ of sense, are not so liable to such effects as those which belong to other parts of the body.

The small degree of mischief which was produced, and the readiness with which the nerves had their communication completely cut off, were to me new facts, and encouraged me, in the following case of fungous excrescence from the tongue, which bled so profusely as at times to endanger the patient's life, and never allowed him to arrive at a state of tolerable health, to attempt removing the part by ligature.

John Weymouth, eight years of age, was admitted into St. George's Hospital on the 24th of December, 1800, on account of a fungous excrescence on the right side of the anterior part of the tongue, which extended nearly from the outer edge to the middle line at the tip. It appeared, from the account of his relations, that the origin of this fungus existed at his birth, and had been increasing ever since. He had been a year and a half under the care of the late Mr. Cruikshank, who had removed the excrescence by ligature round its base; but, when the ligature dropped off, a violent hæmorrhage took place, and the excrescence gradually returned. Attempts were made to destroy it by caustic; but hæmorrhagy always followed the separation of the sloughs; so that, after ten trials, this mode was found ineffectual. It was also removed by the knife, ten different times, but always returned.

From this history I was led to believe, that the only mode of removing the disease was taking out the portion of the tongue upon which it grew. This was a case in which I felt myself warranted in making an attempt out of the common line of practice, to give the patient a chance of recovery; and, from the preceding case, having found that pressure on one part of the tongue produced no bad consequences on the other parts, I was led to remove the excrescence in the following manner.

On the 28th of December, I made the boy hold out his tongue, and passed a crooked needle, armed with a double ligature, directly through its substance, immediately beyond the

the excrescence. The needle was brought out below, leaving the ligatures; one of these was tied very tight before the excrescence, the other equally so beyond it, so that a segment of the tongue was confined between these two ligatures, in which the circulation was completely stopped. The tongue was thin in its substance; and the boy complained of little pain during the operation. Thirty drops of laudanum were given to him immediately after it, and he was put to bed. He fell asleep, continued to dose the greater part of the day, and was so easy the next day as to require no particular attention.

On the fifth day from the operation, the portion of tongue came away with the ligatures, leaving a sloughy surface, which was thrown off on the eleventh day, and succeeded by a similar slough; this separated on the fifteenth day. The excavation after this gradually filled up; and, on the twentieth day, it was completely cicatrized, leaving only a small fissure on that side of the tongue.

Encouraged by the result of this case, I was led to perform a similar operation upon a person at a more advanced period of life.

Margaret Dalton, 40 years of age, was admitted into St. George's hospital, on the 25th of December, 1801, on account of a tumour, the size of a pea, situated on the right side of the tongue, near its edge. The history of the case was as follows. A small pimple appeared, and gradually increased, without pain; the only inconvenience was, that it affected her speech, and, when bruised by the teeth, bled freely.

The operation was performed on the 11th of January, 1802, in exactly the same manner as has been already described. It produced a considerable degree of salivation, which was extremely troublesome (much more so than the pain the ligatures produced), and continued till the slough came away. The ligature nearest the root of the tongue separated on the sixth day; the other on the seventh; and, in three days after the separation of the second ligature, the wound was completely skinned over.

A third case of this kind came under my observation, in which there was a small tumour in the substance of the tongue, about the size of a pea, which gave me the idea of its being of that kind which might terminate in cancer. The patient was a gentleman of about forty-one years of age. Upon examining the tumour, I told him of my alarm respecting its nature; and at the same time added, that I was very ready to remove it, should it be the opinion of

other

other practitioners that such a step was adviseable; and my experience in two former cases led me to believe it might be done with safety. I therefore advised him to consult other medical practitioners of reputation, and acquaint me with their opinion. Mr. Cline was consulted, and his opinion coincided with mine; which made the patient decide upon having the tumour removed.

The operation was performed on the 28th of December, 1802. The needle pierced the tongue an inch beyond the tip, a little to the right of the middle line of the tongue; and the space between the two ligatures, when they were tied at the circumference of the tongue, was fully an inch. The tongue was thick; and the mass included by the ligatures was such as to make it difficult to compress it. The operation gave considerable pain, of a numbing kind. Immediately after the operation, the part included became dark coloured, particularly towards the middle line of the tongue. A salivation took place. The next day, the pain and salivation were great, and the patient could not swallow; but, on the day following, he could take broth, negus, and other fluids.

On the sixth day from the operation, the slough became loose; and the least motion of the tongue gave great pain. Upon examining the slough, there was a small spot which looked red, and was surrounded by a dark surface; this was towards the right side. Upon further examination it appeared, that the ligature to the right had not completely deadened the part at the centre, in which the artery had its course. This accounted for the red spot, as well as for the pain the patient suffered; and led me, on the seventh day, to disengage the ligature on the left, (which was almost completely separated) by means of a pair of scissars, and pass another ligature through the grove to the opposite side, and tie it over the part not completely deadened. This gave great pain for a few hours, which was relieved by the use of tincture of opium. On the eighth day, the patient had less pain than on any preceding day, and less salivation; and, on the ninth, the whole slough came away. On the thirteenth, the tongue had so much recovered itself, that there did not appear any loss of substance whatever, only a fissure of half an inch in depth, in the anterior part of it; and, as that now seemed to be exactly in the centre, there was not the smallest deformity.

The preceding cases, in the view which it is intended to take in the present Paper, are to be considered as so many experiments, by which the structure of the tongue is in

some respects ascertained: They enable us to draw the following conclusions.

The internal structure of the tongue is less irritable than almost any other organized part of the body; therefore, the peculiar substance which is interposed between the fasciculi of its muscular fibres, is not in any respect connected with the nerves which pass through its substance to the organ of taste, but is merely a soft medium, to admit of great facility of action in its different parts.

The nerves of the tongue appear to be more readily compressed, and deprived of their power of communicating sensation, than nerves in general; and any injury done to them is not productive of diseased action in the trunk of the injured nerve.

If we compare the effects of compression upon a portion of the tongue with those of a similar compression upon the hæmorrhoidal veins when they form piles, or those of the testicle in cases of varicose veins of the spermatic chord, which not only produce very violent local inflammation, but also a considerable degree of symptomatic fever, it is impossible not to be surprised that the results should be so very different; since we are led to believe, upon a general principle, that parts are sensible in proportion to their vascularity, and that all the organs of sense, when inflamed, are more exquisitely so than any other parts of the body.

The tongue appears to have a power of throwing off its sloughs in a shorter time than any other part. Eight or nine days is the ordinary time of a slough separating from the common parts; in the boy's tongue it was only five.

Having stated the information we derive from these cases, respecting the structure, sensibility, and irritability of the tongue, it now remains to mention the advantage to be derived from them in a professional view; and so strongly is it connected with humanity, that it cannot be undeserving the utmost attention.

The information derived from these cases, enables us to attempt with safety, the removal of any part of the tongue which may have taken on a disposition to become cancerous. As this disease in the tongue always begins in a very small portion of that organ, it is, in the early stage, more within the reach of removal than when in any other part of the body; and as the glands of the tongue are independent of each other, the cancerous disposition by which one of them is attacked, does not so readily communicate itself to the others; and the part may be removed, with a

greater

greater degree of security against a future recurrence of the disease, than in other cases where this malady attacks a portion of a large gland, the whole of which may be under the influence of the poison, long before there is any appearance of its being diseased.

A New Method of preparing the Pure Gallic Acid.

By M. L. Schnaubert.

FOUR ounces of finely powdered galls are infused in water slightly alkalized with potash; the infusion which is of a very deep colour is filtred, and a solution of nitrate of tin is dropped into it, until no more precipitate is formed. The free acid of the liquid is then saturated with potash, taking care not to add the alkali in excess, and the precipitate is separated by filtration. The filtred liquid is then precipitated by acetite of lead, the weight and concentration of which is known. A greyish white precipitate is thus obtained, which is to be digested with diluted sulphuric acid, the proportion of the acid contained in which, must be to the concrete acetite of lead as one to four. After a sufficient digestion, the liquid is carefully filtred and evaporated, in order to afford crystals. If the gallic acid thus obtained, should contain a small quantity of sulphuric acid, it may be deprived of it by digestion with gallate of lead.

In order to be certain of the quantity of sulphuric acid necessary for the decomposition of a given quantity of gallate of lead, I previously dissolved four ounces of acetite of lead in sixteen ounces of water, and diluted one ounce of sulphuric acid in four ounces of water. By mixing these two liquids to afford the perfect precipitation, the requisite proportion was easily found. I must here observe, that it will be better to keep the gallic acid in a liquid state than to reduce it to crystals, because evaporation always renders it more or less brown. I am firmly persuaded that the gallic acid possesses the property of becoming brown by the action of light, at least, if in contact with the atmosphere. For if gallic acid be sublimed perfectly white, and then dissolved in water, it will be found after some time to have undergone this kind of alteration. M. Bucholt has made a similar remark relative to the same fact.

Experiments *on the Substance vulgarly called* Gum Kino. *By* Cit. Vauquelin.

THE name given to this substance is by no means suited to it; and were it not a common practice to give names to things before we are acquainted with their nature, it would be inconceivable how it should have been called a gum, having neither the physical nor chemical properties of one.

Neither have we any accurate knowledge of the tree or of the country that produces it; but it appears to have been first brought to Europe by the English, who made known its medicinal properties, and introduced it into our shops.

It is called in trade *kino* or the *gum-resin* of Gambia. Dr. Oldfield, who made it known to Fothergill, termed it the true gum of Senegal. In the Medical Observations and Inquiries, it is said to be brought from Africa, and the tree that furnishes it to be called by the natives *pau de sangue*.

As a medicine it is used in the form of bolusses, lozenges, aqueous infusion, and spirituous tincture, as a tonic and astringent.

Subjected to the action of fire, it melts and swells up considerably; yields at first a clear liquor, which in a few instants become coloured; a light and nearly white oil then passes over, which in the course of the process becomes coloured and heavier than the aqueous product. A small quantity of carbonic acid is likewise formed, with a large quantity of carbonated hydrogen gas.

The oil produced in this operation unites with caustic fixed alkalis, and forms a deep red liquor, that becomes of a dull green on exposure to the air.

The aqueous product is not acid, but has an acrid burning taste, owing to a portion of the oil retained in solution; and potash separates from it a large quantity of ammoniac.

Twenty grammes distilled with a strong heat left eight and half of a very bulky coal, marked with the colours of the rainbow; and this coal afforded seventy-two centigrammes of ashes, consisting chiefly of lime, silex, alumin, and oxyd of iron.

Kino is little soluble in cold water, but much more in hot, though a portion of it is insoluble. The solution is slightly acid; alcohol does not precipitate it, but separates

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some reddish flocks; when made with boiling water it grows turbid on cooling, and deposits a brown red precipitate.

A saturated solution is precipitated by mild alkalis, but water in sufficient quantity re-dissolves the precipitate.

Caustic alkalis likewise precipitate it, but if added in excess re-dissolve the precipitate.

Glue dissolved in water forms a very considerable rose-coloured coagulum with the solution of kino; and if the quantities be such, that both substances are saturated, the supernatant fluid will be nearly colourless.

Though these appearances indicate the presence of tannin in kino, it does not precipitate ferruginous salts black, but of a beautiful deep green, scarcely alterable by exposure to the air. This property it has in common with the infusions of cinchona and rhubarb; whence it is probable, that these three substances contain a principle of similar nature.

This principle, whatever it be, is very destructible; for, if a little oxygenated muriatic acid be poured on the precipitate it forms with iron, this loses its colour, and does not re-appear on the addition of an alkaline carbonate, which produces only a red oxyd of iron.

The solution of kino copiously precipitates acetite of lead of a yellowish grey; nitrate of silver of a reddish yellow, and tartrite of antimony of a yellowish white, but much more copiously than the infusion of tan or of cinchona; which seems to indicate, that it would be a better antidote in cases of persons poisoned by this metallic salt.

Wool and cotton being boiled in a solution of kino, and then dipped in a bath of sulphate of iron, appeared on immersion of a bottle-green; but being washed and dried, the colour became a blackish brown. It was very durable.

Hot alcohol dissolves kino very well, all but a small portion. Water renders the solution a little turbid, but precipitates nothing.

The portion insoluble in alcohol, nearly a fourth of the whole, has neither the bitterness nor astringent taste of kino; but, on the contrary, is rather mucous and sweet. It easily dissolves in hot water, and gives it a fine red colour. It is precipitable by alcohol; but neither by glue, nor by any metallic solution. On burning, it diffuses a smell resembling that of gum.

I suspect the presence of this substance favours the solution in water of the principle soluble in alcohol; for the latter is less soluble in water when separated from the former; and if the quantity of water necessary for dissolving

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the astringent part be not employed in the first instance, what is left requires a greater proportion of water.

Four litres of water, used at different times, left near twenty grammes out of a hundred of kino undissolved.— The residuum grew soft like a resin in boiling water, and all of it, except seven decigrammes, was soluble by alcohol, to which it imparted all the properties before observed in the astringent matter.

Sulphuric acid diminishes the action of water on kino, instead of increasing it, as it does with respect to the resinous part of cinchona.

It is capable of being used for tanning leather.

From what has been said, it appears that the greater part of kino consists of tannin, and is neither a gum, nor a gum resin. But there is a slight difference between it and the tannin of galls and oak bark, which precipitate iron of a blue black, while kino precipitates it green, in which it resembles cinchona and rhubarb. If, therefore, it were to become plentiful and cheap, it might be employed for all the purposes for which astringent vegetables are commonly used.

Mr. Vauquelin is not the first who discovered the common error respecting kino. In the New Edinburgh Dispensatory, Dr. Duncan has entered pretty fully into the subject, and asserts it to be in reality an extract; and that what we have now in the shops is not brought from Africa, but chiefly from Jamaica. He adds, (in a letter to Mr. Nicholson) that this is an extract of the *coccoloba urifera*, or sea-side grape; while the finest kino of the shops, and what from some circumstances he supposes was the sort analyzed by Vauquelin, is the product of different species of *eucalyptus*, particularly the *resinefera*, or brown gum tree of Botany Bay, from which country a parcel was imported some years ago.

CRITICAL

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

The Anatomy and Surgical Treatment of Inguinal and Congenital Hernia, illustrated by plates; by ASTLEY COOPER, F. R. S. Member of the Royal Medical and Physical Societies of Edinburgh, Lecturer on Anatomy and Surgery, and Surgeon to Guy's Hospital. Folio, pp. 60.

THOUGH the world in general is not quite aware of the extreme frequency of hernia, every medical man knows that this disease is one of constant occurrence in every rank and station of life, and the most limited practitioner must feel the necessity of studying a complaint which forms no inconsiderable share of the business of the surgeon.

Notwithstanding the valuable labours of many eminent men in illustrating this difficult disease (for taking into account all its varieties and anomalies it may well be considered as difficult) there was still wanting (in this country at least) a clear accurate history of all that minute anatomy has been able to discover, and sound surgery to practise in the knowledge and treatment of hernia. This deficiency, it appears to be the object of the present volume to supply; and the high reputation of the author, as an anatomical teacher and practical surgeon, induces us to take an early notice of this publication.

In the Preface, the plan of the work is explained to be purely practical; that is to say, it is meant not to be a history of the opinions and practice of all who have written on hernia, but a history of the disease itself, founded on extensive and personal observation. "I have almost uniformly, in the following work," Mr. C. observes, "avoided quoting the opinions of authors on this part of surgery. This I have done, certainly not from any wish to slight or undervalue the labours of some of the most excellent physiologists and practitioners that have adorned our profession, but because it did not form a part of my plan to give a history of this branch of surgery, and because I wished to confine myself to the very wide scene of observation afforded by the two noble institutions of St. Thomas's and Guy's Hospitals, and to that portion of the practice of this metropolis which I have been personally enabled to authenticate. I have therefore related no case, and given

no remark, to the truth of which I cannot vouch; and for the same reason, the subjects of all the plates annexed to this volume are from preparations either in my own possession or in the Anatomical Museum at St. Thomas's Hospital."

The Author pays a just compliment to the correctness of the Anatomical Nomenclature lately proposed by Dr. Barclay of Edinburgh; at the same time, however, that he declines adopting it in a practical work like the present. Probably this has been the most prudent course, though the defects of the present nomenclature are very striking in the description of relative situation, and the author is sufficiently aware of it by attempting something systematical in the employment of the terms at present in use.

The first Chapter contains a description of hernia in general, and particularly of the formation of the hernial sac, a subject which has excited some controversy, and has produced much nice and acute anatomical investigation, as it forms the most characteristic feature of the disease.

Few are so ignorant at the present day, as not to know that the antient term *rupture* or *burster* is founded on an erroneous idea of the complaint making an opening or laceration of the parietes of the abdomen, and that the sac is formed by a gradual elongation of the peritonæum following the course of the spermatic cord; but there are circumstances in the density of the sac, adhesions, and the like, which are to be explained by more accurate anatomy. Sometimes the sac is wanting, the reason of which Mr. C. explains to be, either where the force of protrusion proceeds beyond the point at which elongation stops, to that where absorption begins; or where the hernia occurs at preternatural openings through the abdomen in the parts of this cavity not lined by peritonæum.

The second Chapter is a short, condensed, but admirable sketch of the anatomy of the parts connected with inguinal hernia. It is particularly here that (as was observed in the Preface) care is taken to preserve uniformity in the terms of relative situation commonly employed, and the whole is drawn up in the very clearest and most perspicuous manner. We rather wish that the Author had given some precise name to the *upper opening* from the abdomen at which the hernia first quits this cavity, before it takes its oblique downward course along with the spermatic cord to the abdominal ring. It is now sufficiently known, and has been taught in the Anatomical Schools for many years, that the passage of the spermatic cord out of the abdomen is not immediately opposite to the ring, but higher up towards the superior spinous process of the ilium, and this orifice ought to have had some designation as well as the abdominal ring.

The description of the fasciæ given off by Poupart's ligament, or, as Mr. Gimbernat terms it, the *crural arch*, is very minute. Mr. C. mentions two, more peculiarly concerned in the formation of hernia; one of them is noticed by Gimbernat, the other is here made the object of particular attention. It is sent upwards from the crural

crural arch, immediately behind all the abdominal muscles, furnishing them with a tendinous expansion, and passes on each side of the spermatic cord, leaving a hole for its passage. It appears more than any other to regulate the size of the upper abdominal opening, and to be the specific contrivance which Nature has prepared for supporting the contents of the belly when protruding against this weak part of its parietes. The course of the arteries connected with hernia, and particularly the epigastric, is described with a minuteness adequate to the importance of the subject, where a want of knowledge in the operator will expose the life of his patient to imminent risk.

In the third Chapter, Inguinal Hernia is particularly described, both from its outward form and the appearances on dissection. The gradual approach made by the pressure of large herniæ of the upper abdominal opening towards the ring is exhibited, and some of the rarer varieties of situation relative to the spermatic cord, or a part of its contents. Of the diseases with which Hernia is liable to be confounded, the Varicocele appears to be that which is the most perplexing, we shall therefore give the Author's diagnosis.

"But of all the diseases of the scrotum which are ever mistaken for hernia, none is so much so as the Varicocele. Often have I known persons (even the children of medical men) to wear trusses for a supposed hernia, which they complained did not fit, gave them pain, and could not prevent the descent of the tumour, when it was found that the disease was the enlargement of the spermatic veins. Varicocele has indeed many marks of hernia. When large, it dilates upon coughing, but not otherwise; it appears in the erect posture, and retires when the body is recumbent; and it is first observed near the ring. The only sure method of distinction with which I am acquainted is this: Place the patient in the horizontal posture, and empty the swelling by pressure upon the scrotum; then putting the fingers firmly upon the upper part of the abdominal ring, desire the patient to rise. If it is a hernia, the tumour cannot re-appear as long as the pressure is continued at the ring; but if a varicocele, the swelling returns with increased size, owing to the return of blood into the abdomen being prevented by the pressure. Some judgment may also be formed by the feel of the tumour, for that of varicocele is always ropy, as if a bundle of cords were contained within the scrotum."

The causes of Inguinal Hernia are described in the fourth chapter.

Many sound and good remarks are introduced in the fifth chapter, on the use and application of trusses in the reducible hernia. The precise part of pressure is determined by the sure guide of Anatomy to be, not at the ring, but higher up, opposite the upper opening, more approaching the ring however in large and old herniæ than in the small and recent.

Irreducible hernia is next described, and some valuable cases introduced in illustration. The use of the laced bag truss is strongly recommended, where the return is absolutely impracticable.

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The symptoms of strangulated Hernia are given in the next and very important Chapter, with that minuteness which is only the result of long experience and accurate attention. The seat of strangulation is the point to which the chief attention is always to be directed. The Author finds it to be sometimes at the ring, but much oftener above it, at the upper opening into the abdomen. The supposed *spasmodic* nature of the stricture is thus ingeniously illustrated. The ring itself being tendinous, cannot assume the state of spasm; "but when the strangulation is above the ring, a portion of intestine protrudes under the edge of the internal oblique and transversalis muscles, compressing them, which in their turn being excited to contraction by the irritation of this pressure, re-act upon the intestine with a force sufficient to produce a strangulation accompanied with spasmodic symptoms."

The thickening of the mouth of the sac, Mr. C. finds by dissection to be a rare occurrence.

The treatment of strangulated hernia and the means for reduction by the *taxis*, or without the use of the knife, are given in the next chapter. The whole is purely practical, and has every evidence of being founded on very extensive observation. It may be considered as a fair specimen of the surgery of a considerable part of this metropolis. We shall not enumerate the various applications auxiliary to the taxis, but remark upon one or two of them.

In speaking of that powerful remedy the tobacco glyster, the author gives a caution which ought not to be forgotten. The dose here prescribed is only *one drachm* of tobacco infused for ten minutes in twelve ounces of boiling water; and he adds, "to those who have commonly heard of two drachms being thrown up at a time without bad consequences, this may appear an useless precaution; but, instructed by personal observation, I can venture to assert, that whoever practises this often, will meet with effects which will lead him to repent his rashness.'

"I once saw a man with whom the tobacco glyster had been used in the quantity of two drachms without a reduction of the tumour, who about half an hour afterwards was put upon a table to have the operation performed, when his pulse was found so low, his countenance so depressed, and his body covered with cold sweats, that he was ordered back to bed, and on carrying him thither he expired."

Another case is added, in which *only one drachm* of the tobacco was used, which produced violent pain, vomiting of matter smelling strongly of tobacco, and terminated fatally about half an hour afterwards, evidently from the effects of the remedy.

An useful precaution is given on the application of ice, which is, not to let the part be moistened with the melting ice, as a long application of cold accompanied with wet, has been found to produce a local mortification or frost-biting of the integuments. This happened to a patient of Mr. Sharp and Mr. Cline. The ice should therefore be tied up in a bladder.

[To be continued.]

Observations on Pulmonary Consumption; or, an Essay on the Lichen Islandicus, considered as an Aliment and a Medicine in that Disorder; by J. B. Regnault, M. D. &c. Second edition. 8vo. pp. 112.

The first edition of this pamphlet was noticed in vol. viii. p. 463. Since that time the lamentable disease which is the subject of it, has engaged more general attention, and the means of prevention and cure have been more accurately considered. The remedy and treatment recommended by Dr. R. have been extensively tried, and in many instances with the desired success.

The present edition is considerably enlarged by the introduction of several new chapters; from the last of which we extract the following Observations, as they appear to merit the general attention of the public.

" It has long been the custom in England to send consumptive patients into warmer climates, such as the south of France, Spain, or Italy, for the sake of enjoying a drier and purer air. Without attempting to investigate the origin of this practice, let us enquire, in the first place, what proofs have been adduced in support of the opinion that a dry air is most favourable to the consumptive. Uniform experience shews us, that such invalids are much worse in a dry serene air, such as generally accompanies an east wind in this country, while, on the contrary, they are much better in situations where the air is mild, and charged with humidity; such as the south of England, or the sea, when the wind is in the south or west quarters. The function of the lungs requires perpetual and considerable motion, or expansion and contraction, and their flexibility or suppleness is supported by a thin aqueous mucus which lines all their cavities, and is secreted there for that purpose. It appears then, that an atmosphere charged with a certain degree of moisture is friendly to the lungs; and that it is a powerful means of preventing the inflammation which would destroy their motion, as happens in pleurisy and in a hot dry air.

" The bodies of animals ought naturally to be in a kind of vapour bath, formed by an atmosphere of their own, which always contains humidity to the distance of some inches; an air too hot and dry dissipates this continually, and that the more easily as it is supplied very scantily on account of the exhausted state of the fluids of the body.

" In hot sandy climates, as Egypt for example, all the resources are employed which art can suggest to moderate the heat and supply the atmosphere with the necessary moisture. They bathe frequently; they make wells in the middle of their houses; they receive the cool air of grottos by means of tubes; they live in cellars in the hot weather; keep their windows open during the night, and close those carefully which are exposed to the sun, during the day; they sprinkle their apartments with fresh water, or spread leaves or flowers over them; thus the air becomes charged with the moisture

ture that evaporates, by which its elasticity is diminished, and the parching dryness of it rendered supportable.

"Dr. Pugh has demonstrated, by arguments founded on experience, that the climate of Naples or Nice, is very inimical to consumptive people. He instances a great number of English who died in a short time in these towns, a large proportion of which would certainly have escaped if they had remained in England, or chosen other parts of the south of France. He then proceeds to enumerate certain cantons of France, which he prefers to any part of Italy. He mentions, for the winter season, the environs of Avignon, of Nimes, and of Pezenas; principally because these districts are at a suitable distance from the sea, the influence of which he thinks so prejudicial in cold weather.

"In summer, he prefers Bareges or Bagneres, both situated on mountains, even to the mountains of Cevennes, which should be left about November, in order to return to the proposed winter residence.

"Though we approve Dr. Pugh's opinion, we would ask, what occasion is there to leave England, since it presents the very advantages we go so far in search of, and is exempt from the inconveniences attending distant changes of place? If change of air, in an atmosphere most equal and least agitated by tempests, is advantageous to persons of weak or diseased lungs, we ought to chuse this atmosphere as near as possible to the country where such invalids have previously lived; for if it be too remote, they will be exposed to new dangers in the journey. The different temperature of distant climates, the different exhalations from land and water, from animals, vegetables and minerals, have a powerful influence on different constitutions, and on health in general.

"To these important considerations, which are sufficient to determine our voluntary choice of situations for invalids as near their own homes as possible, we may now add the imperious motive of necessity. An ambitious enemy has shut the English out from France, Italy, and Spain, so that now they ought to do what reason has long suggested to them, that is, to seek for and prepare suitable situations for invalids, in their own islands. Bath and the hot-wells of Bristol have long been resorted to by asthmatic and consumptive patients; but the mild and sheltered vales of Devonshire and part of Cornwall offer situations far more desirable. It is a consideration of no light importance, that those who are obliged to leave their families for the recovery of health, may easily correspond with or be visited by their parents, children, or relations, and on many occasions be attended by them. The want of this convenience, together with the dangers and expences of distant travelling, have proved fatal to many a valuable life, by deterring patients and their friends from encountering long journies. Nothing seems necessary to draw these situations into general notice, but the patronage of a few noble and respectable families, to encourage the building of hotels, baths, promenades, and making good roads

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to the adjacent towns. A small part of the sums heretofore expended in visiting the continent would be sufficient to secure all the salutary advantages of foreign climes on the English shores, without risking the dangers of voyages and travels. The mildness of the air on the south-western coast of England, Wales, and Ireland, is abundantly proved by the myrtles and other tender plants resisting the usual winters without artificial warmth. And surely it must strike every patriotic mind, that retaining the wealth of the nation, or distributing it in the country, is infinitely preferable to dissipating it among foreigners. We hope these observations, which are no less dictated by prudence than necessity, will promote inquiries and exertions, which cannot fail to improve the districts where they are made, as well as contribute to the general health and prosperity of the British empire."

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

Our Readers have been acquainted in a former Number of this Journal, of Dr. Trommsdorf's discovery of a new earth, which he found in the Saxon beryll, and to which he gave the name of Agust Earth, on account of its forming tasteless salts. The fossil itself, in which it was said to be contained, has since been received into the system of mineralogy by the name of Agustit. This discovery however is now annihilated by the latest researches of Hauy, Vauquelin, Klaproth, and Karsten, and the agust earth is to be exploded from the catalogue of simple bodies. Mr. Karsten, of Berlin, who was one of the first mineralogists that admitted the agustit in his valuable mineralogical tables, at the request of Mr. Vauquelin, transmitted to him a small quantity of this fossil, adding also some specimens for Mr. Hauy, as both gentlemen were curious in convincing themselves of the identity of the fossil, as well as of the new earth contained in it. In a letter which Mr. Karsten received some time after from Mr. Hauy, he was informed of the arrival of his present, and, at the same time, of the interesting results which Vauquelin and Hauy had obtained by their analysis of the Saxon beryll. Mr. Hauy examinining this fossil according to his method, found it to have the same form as the phosphat of lime or apatit, and the chemical analysis of Vauquelin agreed exactly with the opinion of his colleague; for he could trace nothing in it but phosphat of lime. Mr. Karsten, surprised at receiving this intelli-

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gence from those great naturalists, re-examined a small quantity of one part of that fossil, of which he had sent the other part to Paris; and the few experiments he could at that time undertake, seemed to yield the same results with those of Hauy and Vauquelin; but in order to obtain a perfect chemical analysis of the agusit, he requested Mr. Klaproth to submit it to a new analysis, acquainting him at the same time with the intelligence received from Paris. This gentleman immediately complied with his request, and sent him soon after the following account: "Pure pieces of augustit after having been reduced to a fine powder, were infused with nitric acid, in which the powder dissolved for the most part; but on heating the liquor a perfect solution was effected. The clear liquor was divided into two parts. 1. One half of it was accurately neutralised with ammonia and treated with a solution of quick-silver in nitric acid, which had been prepared in the cold. A phosphat of mercury was precipitated, which being properly heated, left behind phosphoric acid after the evaporation of the mercury. 2. The rest, or the second half of the above-mentioned solution, on being treated with oxalate of kali, yielded oxalate of lime. This substance, edulcorated, dried, and strongly heated in a platina crucible, gave quick lime, which being infused with water formed lime water; and dissolved in nitric acid and precipitated by sulphuric acid, it gave sulphat of lime or gypsum; and precipitated by carbonated kali, it was changed into carbonat of lime." From these experiments it appears, that what is generally called Saxonian beryll is only a variety of apatit; and that if Mr. Trommsdorf has not analysed a different fossil, which he might have received by the false name of Saxon beryll, the existence of the agust earth must be denied, till further information is received from that gentleman.

Dr. Friese, of Breslau, has employed the digitalis in three cases of pulmonary consumption with the greatest success, and thus added a new evidence of the antiphthisical virtue of that efficacious plant. The patients were in the first stage of the disease, and two of them affected with tubercles. They spat blood, discharged a great quantity of purulent matter, and had a high degree of fever, and colliquative sweats. The remedy was given in form of powder and in infusion, and the cure was concluded with bark and lichen islandicus. The digitalis was given by degrees in such doses till its narcotic effect could be perceived; it generally caused vomiting, giddiness, and dilatation of the pupil. It visibly diminished the number of pulsations; and in one case the pulse fell, in the course of six days from 110 and 115 to 60 beats in a minute, and was raised again to more than 80, on having discontinued the remedy for some days.

Cit. Conte has discovered a new mode of preventing the oxydation or rusting of iron and steel. For this purpose he recommends a com-

a composition of fat oil varnish, with the same quantity or at least with four-fifths of rectified oleum terebinthinæ. This varnish is laid on thin and even by means of a sponge, and is suffered to dry in a place where it cannot be spoiled by dust. It preserves the metallic gloss, and no trace of rust is ever perceived on things thus varnished. It may likewise be applied on copper, the polish and colour of which are always preserved by it, and it is particularly recommendable for surgical and other instruments.

Mr. Renaud is of opinion, from some experiments recently made, that arsenic in a metallic state has no effect on the animal body. Metals, in general, seem only to act on the animal body, when in a state of oxydation; hence all metals which are not easily oxydable, have but little or no effect on the living body. Thus quicksilver, as a metal, has not the least action, but only a mechanical one, depending on its natural heaviness; whereas, in an oxydated state it proves strongly stimulating, and often corrosive. Many difficulties however occur in making experiments with metallic arsenic, this metal being already oxydable by the mere contact of the air; besides, the slightest trituration is capable of oxydating it, on which account it cannot be given in powder; and in pieces it will only act with its surface, because it dissolves with great difficulty in the stomach. For these reasons, Mr. R. took the arsenial mundic (mispickel in German) which may be reduced to a fine powder without losing its metallic gloss. Mr. R. gave this substance from 18 gr. to 2 drachms to dogs, without perceiving any symptoms of a deleterious effect.

Signor Brugnatelli has communicated, in a letter to Van Mons, the results of several experiments with the action of Volta's pile on animal fluids. Blood taken from an ox, lost its colour and cogulated, when brought in contact with the positive metallic plate; at the negative pole it received only a black colour. Milk brought in connection with the positive pole, coagulated, receiving an agreeable acid taste; the negative pole was covered with saccharum lactis. On repeating the experiment with gold wire instead of platina, the coagulated milk received a rose colour. Saliva slightly coagulated at the positive pole; but ox-gall coagulated at this pole to a substance exactly resembling that which is produced by treating the gall with acid. Urine deposited urée at the positive pole, and at the negative, phosphat of ammonia.—The white of an egg coagulated at the positive pole, in the same manner as by the application of heat; and the yolk of an egg was hardened round the metallic plate.

The largest specimen of amber, which has ever been discovered, was accidentally found in a meadow near Insterburg, in Prussia. It

It is almost as long as half a sheet of common paper, and exactly as broad, and about two inches and a half thick; its weight is thirteen pounds, seven ounces and a half. It is pale yellow, and its surface covered with a brown opaque crust. Its value however is much lessened by several holes that penetrate toward the middle. It is said that 5000 dollars, or about 900l. have been offered for it; and the Armenian merchants, who trade in amber, have asserted, that it might probably be sold for 8000l. in Constantinople. It is now preserved in the Royal Chamber at Koenigsberg.

Mr. Brugnatelli observes, that on treating common paper with nitric acid, we obtain a great quantity of suberic acid mixed with oxalic acid, which proved that M. Fourcroy was right in ranking cork amongst the immediate constituents of vegetables.

M. Chenevix, in a letter, dated Dresden, observes, that Des Costils dissolves raw platina in nitro-muriatic acid, and precipitates it by muriate of ammonia at several times. The first portions are yellow, the last redder. He reduces the red precipitate, and obtains an alloy. He exposes this alloy to a current of oxygen, and a blue oxyd is volatilized; pure platina remains behind. The blue sublimate is the oxyd of this new metal.

A new vegetable salt, containing a new acid, has been discovered by Klaproth. It consists of a saline mass, exuded from the trunk of the white mulberry, *morus alba, L.* on the surface of the bark; it has the appearance of a coating, in little granulous drops of a yellowish and blackish brown.

Mr. Whately has in the press a work on an Improved Method of treating Strictures in the Urethra.

Mr. Syer will commence his Third Course of Lectures on the Elements and Practice of Midwifery, &c. at his Lecture Room, No. 102, Leadenhall Street, on Thursday, March 1, 1804, at half an hour past five o'clock in the evening.

TO CORRESPONDENTS.

Communications are received from Dr. Moodie, Mr. Marson, Mr. Hardman, and Studiosus.